Newspaper Accounts

Moweaqua Coal

~~1. Forbes~~
~~2 Mr D Harrington~~
~~3 Mr Forbes~~

Explosion of Dec. 24, 1932. Files
Moweaqua, Ill

COAL'S TRAGIC COST

(From New York Herald-Tribune)

The tragedy at Mowequa, Ill., where fifty-four coal miners lost their lives in an explosion on the day before Christmas, is just one more of those frightful "incidentals" with which modern society has to pay its fuel bill

No matter how many scientific improvements may be introduced into a coal mine, no matter how carefully the officers and employees of a mine try to avert the hazards of the pits, coal mining remains, basically, a dangerous occupation. Here and there, year after year, come these reports of disaster.

The coal that warms our homes and drives our machinery is paid ever so often, in human lives. That tragic feat is one we should never forget.

This is largely bunk - DH

I agree

The Pottsville, (Pa.) Journal. Jan. 19, 1933. DH

Reports

December 24, 1932
to
January 10, 1933

PRELIMINARY REPORT
EXPLOSION MOWEAQUA MINE,
MOWEAQUA COAL CORPORATION,
MOWEAQUA, SHELBY COUNTY, ILLINOIS.

December 24, 1932.

C. A. Herbert,
Supervising Engineer,
U. S. Bureau of Mines,
Vincennes, Indiana.

PRELIMINARY REPORT
EXPLOSION MOWEAQUA MINE,
MOWEAQUA COAL CORPORATION,
MOWEAQUA, SHELBY COUNTY, ILLINOIS.

At 8:00 o'clock the morning of December 24, a disastrous explosion occurred in the Moweaqua mine of the Moweaqua Coal Corporation, Moweaqua, Illinois, resulting in the death of fifty-four men.

There were fifty-six men in the mine at the time of the explosion; the two bottom cagers being the only ones to escape. These two men were not injured and escaped unassisted. The electrician had just gone on top for motor repair parts, thus also escaped.

The mine is owned by the Moweaqua Coal Company and had been operated by them for thirty-five or forty years. Mr. Glenn Shafer, General Manager of the Pana Coal Company, Pana, Illinois is the principal stockholder. Due to the depressed condition of the coal industry, the mine was shut down by the owners and subsequently leased by them to the present operators, The Moweaqua Coal Corporation, and is in reality a community affair started in order to give work to the citizens of Moweaqua, all of whom had either worked in the mine or were dependent upon the mine for their livelihood. All those working in the mine or connected in any way with its operation, were stockholders and had either contributed in cash or in labor, or both, towards opening the mine up.

Officials of the Company are as follows:

L. V. Brown, President, Moweaqua, Illinois.
E. J. Hickman, Secretary, do
J. E. Thomas, Treasurer, "
S. S. Clapper, Legal Advisor, "
John Heemer, Director, "
Wm. Heriot, Mine Boss, "
Chas. Smith, Fire Boss, "

The mine is operating in the Number 5 bed of the Illinois Series, which is about 5½ feet in thickness and lies at a depth of 618 feet. This coal, like all coal in the Midwest, is of bituminous rank.

The immediate roof is a black slate about two feet in thickness. The main roof is a soft grey shale interspersed with many slips and joints.

The mine is developed through two shafts; a two-compartment hoisting shaft and a two-compartment air and escape shaft. The latter in addition to having a stairway, is also equipped with an emergency man cage located in the air compartmentand reached at the ground landing through doors in the housing around the air shaft headframe.

The mine is worked on a room and pillar panel system.

There is a total of 104 employee stockholders, 88 of whom work underground. However, due to the fact that it does not require this number of men to produce the amount of coal that can be sold, only part of them work at one time. On the morning of the explosion, 57 men, in addition to the pit boss who was on top at the time, had reported for work.

The mine produces a maximum of 400 tons of coal per day and it is all sold to trucks for domestic consumption at Decatur and neighboring towns.

The mine had been classed as non-gaseous by the State Department of Mines and Minerals, and was operated with open lights and non-permissible equipment. It is understood however, that it is the intention of the State Department to class the mine as gaseous and require closed lights if it is reopened.

The mine is dry and it is reasonable to assume there was considerable coal dust. However, due to lack of ventilation, the only roads traveled were the intake haulage roads which were so badly caved that it was impossible to

determine what conditions were prior to the explosion.

The coal is undercut by non-permissible machines.

Haulage from the face to entry partings is by mule; from the partings to the shaft bottom by trolley locomotive.

The coal is shot with black powder and fuse by shot firers after the day shift has left the mine.

The main roads had been rock-dusted some years prior, but doubtless there was not enough left to have any effect on the propagation of the explosion.

No watering is used underground.

The mine is ventilated by a steam driven Jeffrey fan run exhausting, the hoisting shaft and main haulage roads being the intake and the air shaft the return. At the time of the explosion, approximately 35,000 cubic feet of air was passing down the hoisting shaft. Air losses were doubtless high and probably only a small percentage of this quantity was reaching the face workings.

The only sections of the mine working were the 11 and 12 west off the 16th north and the 13 and 14 east and 13 and 14 west off the 15th and 16th south. The only sections affected by the explosion were apparently, the 15th and 16th south outby the 9 and 10 panel entries; the 15th and 16th north outby the 7and 8 west; and the west entries from the 16th north to the overcast at the 7th and 8th north.

The haulage entries including the main west, the 15th north and the 15th south, were heavily timbered and nearly all of this timber was blown out from the overcast on the main west to a point about 1,000 feet inby on both the 15th south and 15th north entries. The blowing out of this timber resulted

in extremely heavy caves, particularly on the main west parting just outby the 15th south.

At first glance it would appear that the explosion was of extreme violence, yet it is believed that it would not take a great amount of force to blow out some of the timber, and as each set was tied to the other by lagging, one going out would naturally carry others with it. It is believed therefore, that in this case appearances were deceptive and that there was not an extreme amount of violence.

It is very apparent that the explosion came out the 15th and 16th north, traveling outby on the main west and inby on the 15th and 16th south. On the 15th north however, the forces appeared to divide on the old parting between 1 and 2 east and the 3rd and 4th east, while on the parting inby the 5th and 6th east the evidence very definitely showed the forces going inby. However, due to lack of ventilation it was impossible to get into the return aircourses, nor to get beyond the parting on the 15th north where the last bodies were recovered, and as the haulage roads affected by the explosion were largely covered with heavy falls, the evidence on these roads was pretty much buried, so that until a more thorough investigation can be made, definite conclusion as to the cause of the explosion or point of origin cannot be drawn; although from the evidence thus far obtained it would appear that the explosion had its origin on the 15th north and was due to the ignition of gas by open lights, the gas coming from improperly sealed panels on the 15th north.

Very little evidence of heat was observed and the only evidence of coked coal dust observed was on the inby parting on the 15th north.

About 2:00 a.m. December 23 a coal fire at the face of No. 7 room, 12 west off 16 north, was discovered by the fire boss. This was sealed by the

building of single dirt seals. During the night of December 23, additional dirt seals were put in just outby those that were finished the previous day. These additional seals were completed about 6:00 a.m. the morning of the explosion, December 24. It was first thought that the explosion might have had its origin at this fire but from the evidence thus far observed this is not believed to be the case.

It is hoped that it will be possible to complete the investigation within the next week or ten days.

On the morning of December 24, barograph records at Decatur, Illinois, fifteen miles north of Moweaqua, showed a sudden drop in barometric pressure of two tenths of an inch at 8:15 o'clock. From information obtained from the U. S. Weather Bureau, the low which caused this drop was traveling north at a rate of approximately thirty miles per hour and would thus have hit Moweaqua about 7:45 a.m. - fifteen minutes before the explosion occurred.

This explosion shows the fallacy of attempting to seal off old workings containing explosive gas, with dirt seals or poorly constructed masonry seals.

Word of the explosion was first received by telegram at about 10:57 a.m. from the Pittsburgh office. The mine was immediately called by telephone to substantiate the wire and we were informed that the Illinois State rescue teams were arriving and it was not believed that rescue apparatus would be needed, but that they would call us back. In the meantime the rescue equipment was loaded up in preparation of being taken over if needed. By the time the equipment was ready, word was received that the equipment would not be needed.

Messrs. C. A. Herbert, A. U. Miller and T. A. Forbes of the Vincennes Station, proceeded at once by auto, arriving at the mine about 5:00 p.m. and assisted with the recovery operations.

Recovery work was in charge of Mr. John G. Millhouse, Director, and Peter Joyce, Assistant Director, of the State Department of Mines and Minerals.

Apparatus crews from the Benton, LaSalle, Springfield, and Duquoin, Illinois stations also crew from the Superior Coal Company, Gillespie, Illinois, assisted in restoring ventilation and in exploration work ahead of the air.

State Mine Inspectors, Flynn, Plumlee, White, Morgan, Bagwell, Weir, Marshall, Fraser, and Hodges, also assisted with the work.

Mr. Millhouse and his inspectors are to be congratulated on the able and efficient manner in which recovery work was conducted, and the highest praise is due the many able men who volunteered their services for the arduous and dangerous work in connection with the recovery work following a disaster of this kind.

Respectfully submitted,

C. A. Herbert,
Supervising Engineer.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

MINE EXPLOSION

File No. 1568

Mine Moweaqua Mine Location Moweaqua, Shelby County, Ill

Company Moweaqua Coal Corporation Mailing address Same

Date Dec 24, 1932 Time of day 600 a.m. ____ p.m. Mine working or idle working

Total employment 104 Underground 88 Shifts worked 1 Daily production (tons) 400 not.

Number men killed 54 Injured 0 In mine 56

Number men escaped unassisted 2 Rescued ____ Barricaded ____

Type (gas or dust) gas Ignition source open lights Rock-dusted part

Was breathing apparatus used yes Gas masks ____ Self-rescuers ____

Time required to reach explosion area all bodies recovered by the night of Dec. 29

Classification (gassy or nongassy) nongassy Methane exhausted (24 hours) ____

Number of main fans 1 Quantity air per minute 35,000

Ventilation (continuous or split) ____ Face (line brattice or fans) ____

Mine openings 2 shafts Principal shaft

Coalbed Number 5 Thickness 5½' Volatile ratio ____ Roof shale Floor fire clay

Mining system room and pillar Pillars extracted ____

Room support: Main entries timbers Intermediate Some Section Some

Transportation: Main Locomotive Intermediate Locomotive Section mule Carlite

Electricity (voltage ac or dc) 250 DC Face 250 DC Portable lights lamps

Principal mining machinery (continuous miners, conventional, etc.) conventional (cutting machine hand loaded)

Was machinery permissible type no Was it permissible ____

Blasting and explosives: Coal black powder Grading or special use ____

Cause of explosion gas moved out of old works barometer dropping, and ignited by open lights

Did explosion result in fire or were fires found ____

Point of origin 16 north

Area affected 15 & 16 north 15 and 16 South sections (only sections working)

Was Bureau report made yes Author(s) C. C. Herbst

If no Bureau report, what and by whom ____

Remarks ____

7915

REPORT OF EXPLOSION
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MOWEAQUA COAL CORPORATION
MOWEAQUA, SHELBY COUNTY, ILLINOIS

December 24, 1932

C. A. Herbert,
Supervising Engineer,
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There were fifty-six men in the mine at the time of the explosion: the two bottom cagers being the only ones to escape. These two men were not injured, and escaped unassisted. The electrician had just gone on top for motor repair parts and thus also escaped.

The mine starting time is 8:00 a.m. and the men were on their way in to their working places when the explosion occurred. Part of the men were riding in with the drivers and the balance in the regular man trip. The drivers left the bottom about 7:30 and the man trip about 7:45 a.m.

On the morning of the explosion there had been a sudden drop in barometric pressure, which, it is believed caused gas to flow onto the 15th north entry from inadequately sealed old workings, and ~~which~~ the gas was ignited by the open lights of the men proceeding into this entry with the drivers in advance of the "motor" trip.

Some rock-dusting had been done along the main west entry some years previous, but it is not believed to have had any effect in limiting the propagation of the explosion. Due to the naturally high incombustible content of the road dusts it is believed that propagation in the explosion area would not have occurred except for the high methane content due to leakage from the sealed area.

The explosion was not of extreme violence and was confined to the

outby 1800 feet of the 15th south entry, the outby 1800 feet of the 15th north entry and approximately 1200 feet of the main west outby the 15th north, the 15th and 16th north and 15th and 16th south sections being the only territory working at the time of the explosion.

The first word of the explosion was received at Vincennes by wire at 11:00 a.m. from the Pittsburgh, Penna. Station of the Bureau of Mines. A long distance telephone call was immediately ~~put in~~ made to the mine at Moweaqua, and the "wire" from Pittsburgh regarding the explosion, confirmed. While waiting for the telephone connections to Moweaqua, the Vincennes rescue equipment was loaded into the rescue truck preparatory to leaving. Advice was received however, that the various Illinois State rescue crews with their apparatuses were arriving and that the Bureau equipment would not be needed.

Messrs. C. A. Herbert, A. U. Miller and W. H. Forbes left Vincennes about 1:00 p.m. by auto and arrived at the mine about 5:00 p.m. and assisted in the recovery operations until the last bodies of the victims were recovered, on the night of December 29.

On Febru/14ary, 1933, Messrs. Herbert, Miller and Mowery again visited the mine to obtain additional information.

LOCATION AND OWNERSHIP

The Moweaqua Mine is located at Moweaqua, Shelby County, Illinois, on the Illinois Central Railroad and is owned by the Moweaqua Mining and Manufacturing Company, Mr. Glenn Shafer, General Manager of the Pana Coal Company, Pana, Illinois, being the principal stockholder. Due to the depressed condition of the coal industry in Illinois, the mine was shut down by the owners and subsequently leased by them to the present operator, The Moweaqua Coal Corporation, which is in reality, a community affair organized by the citizens of Moweaqua, in order to

give work to the residents of this place, a majority of whom had either worked in this mine or were more or less dependent upon the mine for their livelihood. All those working in the mine or connected in any way with its operation, were stockholders and had either contributed in cash or in labor or both, towards opening up the mine.

The officials of the operating Company, The Moweaqua Coal Corporation, are as follows:

L. V. Brown, President,	Moweaqua, Illinois.
E. J. Hickman, Secy.,	" "
J. E. Thomas, Treasurer,	" "
S. S. Clapper, Legal Adviser,	" "
John Heemer, Director,	" "
Wm. Heriot, Mine Boss,	" "
Chas. Smith, Fire Boss,	" "

EMPLOYEES AND TONNAGE

There was a total of 104 employee stockholders, 88 of whom worked underground and 16 on top. However, due to the fact that it did not require this number of employees to produce the amount of coal that could be sold, only part of them worked at one time. On the morning of the explosion, 57 underground men in addition to the pit boss who was on top at the time, had reported for work.

The mine under its present management, had produced a maximum of 400 tons of coal per day, which was all sold to trucks for domestic consumption at Decatur and neighboring towns.

MINE OPENINGS

The coal bed is reached through two vertical shafts approximately 618 feet in depth; one a two-compartment hoisting shaft and the other a two-compartment air and escapement shaft. The latter, in addition to having a stairway, is also equipped with an emergency man cage located in the air compartment and reached at the ground landing through doors in the housing around the air shaft headframe.

COAL BED

The mine is operating in the Number Five bed of the Illinois Series which is about 5½ feet in thickness and with the exception of some undulations, lies nearly flat. The immediate roof is a dark shale or slate about 18 inches in thickness; the main roof is a soft grey shale or soapstone interspersed with many slips and joints. At the face workings and on the aircourse entries where no brushing is done, the dark slate just above the coal stands fairly well. On the main haulage entries where the roof has been brushed to give height for the haulage locomotive the soft grey shale does not hold well and requires close timbering.

ANALYSIS OF COAL

Analysis of face samples collected in a mine about fifteen miles north of Moweaqua and working the same coal bed, was as follows.

Moisture - 12.67; Volatile - 35.75; Fixed Carbon - 43.08; Ash - 8.50; Sulphur - 3.32; B.t.u. - 11,103.

Sampling and analysis were by the Illinois State Geological Survey.

METHODS OF MINING

The mine was operated on a room and pillar panel method, the coal being undercut by electric chain machines and loaded by hand. The main haulage entries in the sections that have been brushed are timbered throughout with three-piece sets on about five-foot centers and lagged on both sides and top. Inby the brushing on the haulage entries and in the aircourse entries, posts are set on either side of the entry where needed, to support the slate, and in places straps or collars of 3" x 6" sawed lumber are used to give additional support.

VENTILATION

The mine is ventilated by a steam driven Jeffrey fan located at the

air and escapement shaft. This fan is run primarily exhausting, but is equipped so the air current may be reversed, if necessary.

Approximately 35,000 cubic feet of air per minute was measured at the bottom of the hoisting shaft, which is the downcast.

Air samples were collected on February 14 in the main return just inby 14th south; in the 16th south just inby the west aircourse and in the 16th north inby the main west, and the following tabulations gives the results of analyses of these samples:

RESULTS OF AIR SAMPLE ANALYSIS

Lab.No.	Location	CO_2	O_2	CH_4	N_2	Volume of air	CH_4 pr.hr.	CH_4 pr.24 hrs.
57183	MW Ret.just inby 14 South	.25	20.32	.15	79.28	8775	789cu.ft.	18950 cu.ft
57184	do above	.24	20.31	.15	79.30	"		
57185	16No.just inby MainWest	.32	20.12	.25	79.31	2860	429 "	10300 "
57186	do above	.30	20.09	.27	79.34	"		
57187	16So.just Inby West aircourse	.42	19.66	.22	79.70	1960	258 "	6192 "
57188	do above	.39	19.76	.22	79.63	"		

The above analyses indicate that at the time the samples were taken the 15th and 16th south entries were liberating 258 cubic feet of methane per hour, or 6192 cubic feet each twenty-four hours; the 15th and 16th north entries were liberating 429 cubic feet of methane per hour, or 10300 cubic feet each twenty-four hours, while the explosion area was liberating 789 cubic feet per hour, or 18950 cubic feet each twenty-four hours. While this is a very appreciable amount of methane, it is not an excessive amount and not the amount that would ordinarily be liberated from a very gassy mine. However, it must be borne in mind that these samples were collected on February 14, a month and a half after the explosion occurred, and that ventilation had not been completely restored throughout the explosion area; in fact, the air was only circulating as far as

the 5th and 6th east entries on the 15th north and unquestionably if the mine were working, with fresh coal being exposed every day and the air being circulated throughout the entire explosion area, the amount of methane being liberated would be greater.

The mine was not rated as gassy by the State Inspection Department, although if it is reopened it will be considered as gassy and only closed lights will be permitted.

One fire boss was employed who inspected the mine for gas with a flame safety lamp before the regular shift entered the mine.

HAULAGE

The coal was gathered from the face workings to the inby partings by mule; from these partings to the shaft bottom the coal was hauled by trolley locomotive. The cars are constructed of wood of the endgate type and hold approximately 1½ tons.

The cars were hoisted on self-dumping cages by a steam driven hoisting engine.

The electric haulage was on the intake air.

LIGHTING UNDERGROUND

The miners used carbide lamps. The shaft bottom and partings were lighted by electricity from the trolley circuit.

MACHINERY UNDERGROUND

The underground machinery consisted of the electric chain cutting machines, one trolley locomotive and a motor driven pump at the bottom of the shaft. These are all of the non-permissible type and were operated on 250-volt direct current generated at the mine.

BLASTING

The coal was all shot with black powder and fuse by shot-firers after

the men were out of the mine. The miners loaded and tamped their own shots.

DRAINAGE

The mine is naturally dry, the only pumping required is at the bottom of the shafts, to take care of the water the shafts "make."

DUST

While it was impossible to get to the face workings following the explosion, because of lack of ventilation, no doubt the actual working places contained much coal dust; the dust on the haulage entries however, contained a high percentage of incombustible matter, due to the fire clay bottom and to the fact that small particles from the soft shale top and from the rock and fire clay gobbed behind lagging on the sides of the entries were continually being mixed with the road dusts. The coal ribs on the haulage roads were exposed in very few places. From what observations were possible at points not affected by the explosion it is believed that the entries were kept exceptionally clean and free from spilled coal and in this were no doubt aided by the fact that the cars were not topped to any great extent.

On February 14, 1933 road and roof and rib dust samples were collected on the main west, both inby and outby the 15th south and on the 15th south, at the points where the flame of the explosion had apparently died out; no samples were collected on the 15th north as it was impossible to get into this entry beyond the 5th and 6th east because of lack of ventilation. Tabulation of the results of these samples on the "as received" basis, is as follows.

RESULTS OF DUST SAMPLE ANALYSIS

Lab No.	Location	%Moisture	%Com bust.	% Ash	Sizing Cumulative Per Cent Thru 20 mesh	Thru 48 mesh	Thru 100 mesh	Thru 200 mesh
AS7781 Road	158 100'Outby 9&10 East	7.6	34.8	57.6	100.	68.0	48.1	29.5
AS7782 Roof & Rib	do above	8.9	36.3	54.8	100.	62.4	42.7	31.5
AS7783 Roof Rib	MainWest 200' Inby 16 North	16.2	39.5	44.3	100.	67.9	45.5	34.8
AS7784 Road	do above	8.1	27.0	64.9	100.	67.5	37.3	24.1
AS7785 Roof Rib	MainWest 200' Inby overcast	11.6	37.9	50.5	100.	69.4	50.8	39.9
AS7786 Road	do above	8.6	51.0	40.4	100.	66.9	42.7	30.6

The roof and rib dust samples were collected mostly from timbers, lagging and from ledges of gobbed rock behind the lagging, as there was very little exposed coal rib along any of the haulage roads. The uniformity of the ash content and the high percentage of ash content is remarkable for a mine in Illinois that had not been rock-dusted for several years and no doubt gives a fairly close idea of what the natural dust conditions were on the haulage roads in the explosion area.

ROCK-DUST

Some two or three years previous to the explosion, the main haulage entries had been rock-dusted, but little evidence however, of this dust existed on that portion of the main west entry not affected by the explosion and it is not believed therefore, that it played any material part in limiting the propagation.

SUPERVISION

The underground supervisory officials consisted of the mine foreman and the fire boss. With the small number of men employed, the mine boss should have been able to visit each working place at least once each day.

From information obtained in a conversation with the inspector for the insurance company carrying the risk at this mine, the mine had a very favorable accident rate despite the fact that the roof was not good, also, that the roads were kept clean and the places well timbered, which indicated good supervision and discipline.

MINE CONDITIONS IMMEDIATELY PRIOR TO EXPLOSION

The mine was working on the morning of the explosion. Conditions were apparently normal at the time the fire boss made his rounds, as he reported the mine free of gas and in safe operating condition. The mine fan was operating normally and since it was not damaged by the explosion, continued to function after the explosion.

About one o'clock Friday morning, previous to the explosion, the fire boss discovered a coal fire at the face of seven room off the 12th west, caused by a black powder shot. This fire was sealed off Friday by the erection of three dirt seals and as there was still some smoke coming through the seals, it was decided to erect additional dirt seals at each point. To this end the fire boss was asked to report for work at 6:00 p.m. and look after the building of these additional dirt seals, as well as make his regular inspection. These additional seals were completed about 6:00 a.m. Saturday morning, December 24. The fire boss and crew ~~coming~~ CAME out the 16th north to the parting, thence out the 15th north, and as they were using open lights there could not have been any large

amount of explosive gas coming from any of the sealed territory along the 15th north at that time or they would have lighted it.

From noon Thursday until about 6:00 a.m. Saturday, there had been a gradual drop in the barometric pressure and according to barographs at Decatur, Illinois, there was a sudden drop in barometer of .25 of an inch at 8:00 a.m. and since the "low" that caused this sudden drop was traveling north at a rate of about 30 miles per hour, it would have reached Moweaqua about 7:30 or 7:45, as Moweaqua is approximately fifteen miles south of Decatur. In other words, between fifteen and thirty minutes before the explosion occurred, a sudden drop of .25 of an inch in barometric pressure, took place.

The 1st and 2nd east, 3rd and 4th east, and 5th and 6th east off the 15th north, had been worked out and the panels sealed off with brick seals and with out question all contained a high percentage of methane. The 5th and 6th seals had leaked gas onto the entry sometime previous and to relieve the pressure this panel had been tapped with a two-inch pipe line which ran through to the aircourse and was left open.

The seals were built of only one course of brick and had not been properly hitched into the ribs or bottom and hence were not as tight as they should have been. Seals in the 16th north panels were built of dirt and while it is not believed the leakage from these panels played any part in the explosion, yet it is known that they contain explosive gas, as a mining machine working in the 9th west cut through into the 8th west in November previous to the explosion and liberated gas. The fire boss was in the room at the time the machine cut through and detected the gas in time to seal off the undercut before dangerous quantities of gas were liberated.

The seals at the entrance to worked-out panels on the 15th South were built of masonry, either single brick or single cement block, and like those on the 15th north, were not hitched into the ribs or floor and doubtless were not very tight, and with the drop in barometer, PROBABLY leaked gas out onto the entry. The seals in the 16 south were made of dirt.

The fire boss having the construction of the fire seals to look after on the night previous to the explosion, in addition to making his regular examination, may not have been as careful in his examination for gas as usual, but whether or not this is the case it is believed that after he had made his examination the sudden drop in barometric pressure about the time he left the mine, caused gas to flow out onto both the north and south entries from the insecurely sealed panel entries off the north and south entries.

STORY OF EXPLOSION

The explosion occurred soon after the men had left the shaft bottom and before they had arrived at their working faces.

The drivers with some of the men, usually left the bottom for the inside partings about 7:30 a.m. while the man trip with the balance of the men, left the bottom about fifteen minutes later. The latter went in as far as the main west parting just outby the 15th south where the trip was split. The haulage locomotive proceeded into the 15th south with the men working in that section, while the men working in the 15th north section waited with the remainder of the trip for the return of the haulage locomotive to haul them into the 15th north parting.

At 8:00 o'clock, just as the hoisting engineer was blowing the whistle for starting time, the circuit breaker blew out. He attempted to put it back in but it immediately flew out again, due to the short-circuiting of the trolley wires, and thus marks the time of the explosion as just 8:00 a.m. Shortly after

this, word was received on top from the two bottom cagers who felt the force of the explosion but who otherwise were uninjured.

As soon as a realization was had of what had occurred, word was sent to the State Department of Mines and Minerals at Springfield, and to the Pana Coal Company at Pana, Illinois, and to other nearby mines for assistance. In the meantime the mine boss, fire boss and others, made their way into the mine and had restored ventilation along the main west as far as the 14th south, by 11:00 a.m. About this time the Director and Assistant Director of the Illinois State Department of Mines and Minerals, Springfield, Illinois, together with the rescue team from Springfield, arrived at the mine and assumed charge of the recovery operations. Word had been sent out to the Deputy State Mine Inspectors and to the other State rescue teams and these soon began to arfive at the mine.

Word of the explosion was received at the Vincennes Station of the Bureau of Mines, by wire from the Pittsburgh, Pennsylvania station about 11:00 a.m. The mine was immediately called by telephone, to confirm the report and in the meantime the Vincennes rescue truck was loaded with the rescue equipment. About the time the equipment was loaded up, word was received from the mine that the State rescue crews had arrived with all the necessary equipment and that the Bureau of Mines equipment would not be needed. Messrs. Herbert, Miller and Forbes then left by auto for Moweaqua, taking with them the electric cap lamps belonging to the Vincennes Station, as well as some other equipment, arriving at the mine about 5:00 p.m.

By the time the Bureau representatives arrived at the mine, recovery operations had advanced as far as the main west parting. This was found to be caved tightly. Because of the cars on the parting and the mass of timbers, it was decided to work an opening up over the fall and although this was slow,

arduous and dangerous work, it was at last accomplished. Fortunately, the timber had fallen in such a way as to leave open spaces in and around the cars, making it possible to recover the eleven bodies found in the inby three cars of the trip and the one body alongside these cars.

Ventilation was next turned in to the 15th south entry by first building a box undercast to replace the overcast at the junction of the 15th south and the west aircourse that had been blown out. From the west entries there was a continuous heavy fall about eight feet in height, along the 15th south, for approximately 800 feet; it was possible however, to travel over this fall with little difficulty. Fortunately, both the drivers and the man trip had gotten beyond this caved section when the explosion occurred.

The man trip was found just outby the old parting between the 6th and 7th east entries. Sixteen bodies were found with this trip. The controller on the motor had been shut off, the brakes were set and the motorman had gotten out of the cab. Five bodies were found in the cars; two in one car and three in another: eight bodies were lying alongside the cars on the west side of the entry and three bodies outby the trip. One of the men whose body was found alongside the cars had tied a handkerchief over his face, while one of the men in the cars had pulled his coat up over his own and his son's head. Although all of the bodies were burned to some extent, the men had apparently all died of asphyxia.

At the inby end of this parting, covering a distance of thirty or forty feet, eleven bodies were found; these included some of the men who had been in the man trip, as well as those of the two drivers and the men who had been riding with them. These latter had made their way outby to this point a distance of several hundred feet, following the explosion, before being overcome.

The bodies of the two mules were found together about 200 feet

inby the 9th and 10th east entries. One of the mules however, had run inby to the point where found, a distance of 400 feet, following the explosion, as evidence of his struggle to free himself from the derailed car to which he had been attached, was very apparent.

Following the recovery of the bodies on the 16th south the inby entries off the 15th and 16th south were explored by State crews wearing oxygen breathing apparatus, to make certain that all bodies had been recovered.

The main west entries were not working on the day of the explosion, hence it was not necessary to explore them. As soon therefore, as recovery operations were completed in the 16th south, the air was cut off these entries and all the available air turned into the 16th north. At the mouth of the 15th north the body of one of the men who had come in with the "motor" trip, was found. It had been his habit to go up to this point each morning to throw the switch leading into the 15th north. The body had been thrown against the south rib and the clothing either burned off or blown off. Recovery operations were made more difficult in these entries than in the 16th south, due to lack of ventilation.

Due to the sluggishness of the air current and the high methane content and low oxygen, it was necessary to do the advance work of hanging curtains in crosscuts, ~~by means of~~ WHILE USING oxygen breathing apparatus; and because of the heavy falls and the necessity for the teams at times to crawl under and over timbers at the bottom of steep falls, the work was both slow and extremely hazardous.

Each time the crews advanced the air, a curtain was hung across the entry to prevent the air FROM going on ahead, as it was not known for a certainty whether or not the fire seals had been blown out in the 11th and 12th west entries. Had they been blown out, the forcing of air to the face of the entries in the face of the possibility of a smouldering fire and an explosive mixture of gas might have resulted disastrously.

Just inby the 3rd and 4th east a mule and a car partly covered by a fall of rock were found; in the car were seven bodies. On the "motor" parting, inby the 5th and 6th east, two mules and seven bodies were located. None of the latter bodies were in the cars and it appeared that the men had gotten out of the cars and were waiting on the parting for the trip when the explosion occurred. It was said that the driver with the six men found just inby the 3rd and 4th east, was invariably late and that he had probably been ten or fifteen minutes behind the first two drivers.

FORCES

Despite the fact that so many timbers had been blown out and there were such heavy falls of rock, it is not believed that there had been very high pressures developed by the explosion.

On the main west it was very apparent that the forces had been outby from the 15th north. The top and sides of the wood overcast at the 7th and 8th north had been blown out by pressure in the main entry, the debris being blown into the aircourse. On the main west from the 15th north, the force had been inby; the trap door between the 15th and 16th north had been demolished and pieces blown inby for a distance of 150 feet. Two hundred feet inby the 16th north all evidence of violence stopped.

On the 16th south the force had been inby; the brick and wood overcast at the junction of the 16th south and the main west aircourse had been blown out, material from this overcast being blown both east along the west aircourse and into the 16th south.

The concrete block seals in the 1st and 2nd east were blown toward the panel entries; the concrete block seal in the 4th east entry, was bulged in towards the panel but was not blown out; it appeared that the blocks had been laid up with very poor mortar and that it did not take very much pressure to bulge it in. From this point inby there was little evidence of violence

except the scattering of light material such as paper, pieces of curtain cloth, etc. In the 16th south aircourse as far as could be observed, there was little or no evidence of violence. In the 15th north the forces appeared to be outby as far as the 3rd and 4th east; from this point the forces were definitely inby. The seals in the panel entries were blown towards the panels and stoppings blown towards the 16th north aircourse. On the parting inby the 5th and 6th east there was evidence of considerable force inby. The trip of loaded cars had been moved inby sufficiently to catch the sprags in the reverse position to which they had been originally set. Three empty cars had been blown inby off the track and crosswise of the entry, but had not been damaged.

A trap door between the 15th and 16th north entries at the inby end of the parting, was blown toward the 16th north.

It was impossible to get beyond this parting because of lack of air, but from the direction of forces it was apparent that the explosion had not come out of the face section of the 15th and 16th north and that the fire in Number Seven room of the 12th west could not have been the cause.

It was impossible to make much of an examination of conditions in the 16th north aircourse, but as far as could be determined there was little evidence of violence in this entry with the exception of debris from the crosscut stoppings that had been blown into this entry. As most of the crosscuts had been gobbed up with rock and the stopping protected, there was very little of this material blown into the 16th north.

EVIDENCE OF HEAT OR FLAME

With the exception of the fact that the bodies found on the main west parting were burned, there was little evidence of heat or flame remaining outby the 15th south, due to the heavy falls of rock having obliterated all evidence. Inby the 15th north on the main west, charred splinters and shreds of bark on

the timbers indicated flame going inby for a distance of about 200 feet.

On the 16th south the charring of splinters and shreds of bark on the timbers and charring of the paper sack of wood fiber plaster, indicated that some flame had extended inby to within about 100 feet of the 9th and 10th east entries, although in no place was there evidence of a large amount of flame. While the bodies found on the 16th south were burned, they were not badly burned and in no instance had their clothing burned, although matches in the cap band of one of the men had ignited.

The body found against the rib opposite the mouth of the 15th north was badly burned, the clothing having been blown or burned almost entirely from the body. From here in however, there was little evidence of heat until inby the 3rd and 4th east entries. A roll of profile paper that had been placed over a timber along the rib of the old parting between the 2nd and 3rd east was neither disturbed nor scorched. Inby the 4th east there was considerable soot and some globules of coke on timbers. On the slant parting inby the 6th east there was considerable coking, which it is believed was due to coal dust being blown off the trip of loaded cars standing on the parting. With this exception there were only occasional globules of coked coal dust observed throughout the explosion area. No evidence of heat was observed in the portion of the 16th north it was possible to inspect.

CONCLUSIONS OF STATE OF ILLINOIS INVESTIGATING COMMISSION

On January 4, an investigating commission composed of four Illinois State Mine Inspectors appointed by Mr. John Millhouse, Directof of the State Department of Mines and Minerals, made an investigation as to the cause of the explosion and their report stated that in their opinion a fall of roof containing heavy niggerheads or boulders had occurred at the seal on the 5th east off the 15th north shortly after the two drivers with the five men had passed on

their way to the parting and that the air current had carried the gas over their open lights causing the explosion.

Mr. Millhouse confirms this opinion in his testimony at the Coroner's inquest which was held at Taylorville, Illinois on January 10.

SUMMARY OF EVIDENCE AND CONCLUSIONS

The explosion occurred at 8:00 a.m. December 24, 1932, shortly after the men had left the shaft bottom for the face workings, some in cars drawn by mules and the balance in a man trip hauled by the trolley locomotive. At first it was suspected that the explosion might have resulted from an explosion behind fire seals in the 12th west off the 16th north, which had been completed only a short time before the explosion. However, later evidence would appear to preclude this possibility. The evidence indicates that the explosion came out the 16th north, traveled inby on the 16th south a distance of about 1800 feet inby for a distance of about 200 feet on the main west and outby a distance of about 1600 feet on the main west. At a point on the 15th north about where the car and mule and seven bodies were found just inby the 3rd and 4th east, there appeared to be a division of forces. At the parting inby the 5th and 6th east where the seven men and two mules were found, the force was very definitely inby.

It is known that the sealed off panels on this entry contained high percentages of methane and doubtless the same is true of the sealed panels on the 15th south.

About fifteen ~~or~~ To thirty minutes prior to the explosion a sharp drop in barometric pressure occurred and since the seals to these worked-out panels were poorly built, it is believed a considerable amount of methane found its way out onto the entries, probably raising the methane content to near the explosive point and that as the driver with the six men in the car, passed the 3rd and 4th east, they ignited an explosive mixture with their open lights.

The road dust and roof and rib dust samples indicated a naturally high content of incombustible matter and it is believed that unless there had been a considerable amount of methane in the air due to leakage from the sealed areas, the explosion would not have propagated to the extent it did. It is further believed that the pressures developed by the explosion were low and there was no extreme violence despite the fact that so many timbers had been blown out along the haulage entries.

Doubtless the back pressures that built up in the 15th and 16th south, the 15th and 16th north, and the main west, were TO SOME EXTENT contributing factors in stoppings the advance of the explosion toward the head of these entries; in addition to the high natural ash content of the entry dusts aided materially.

So far as the conclusions of the State Investigating Commission are concerned it certainly did not appear to the Bureau of Mines' representatives that the seal at the 5th east had been pushed out by a fall of rock or niggerheads; it appeared ~~to have~~ to have been blown in towards the panel, the fall occurring later.

PROPERTY DAMAGE

The property damage consists of the blowing out of the timbering on approximately 2800 feet of haulage entry, with the accompanying heavy falls of rock to be cleaned up, AND the blowing out of numerous stoppings and the two overcasts. As doubtless much of the timber and lagging could be reclaimed, it is believed the mine could be restored to an operating condition equal to that which obtained prior to the explosion, for approximately $20,000.00.

LESSONS TO BE LEARNED FROM THIS EXPLOSION

One of the lessons to be learned from this explosion is the significance of sudden drops in barometric pressure so far as the flow of gas from old and abandoned mine workings is concerned, particularly so when these workings are

adjacent to the live workings, and points to the desirability of installing a barograph in such a position that it may be easily and frequently observed by some designated official, at every mine that liberates methane. The desirability of this is further borne out by the fact that the same day and at approximately the same time as the explosion at this mine, men riding to work in a man trip in a mine at Virden, Illinois, about twenty miles south of Springfield, were burned by the ignition by open lights or trolley, of gas that came out on the haulage road from sealed off and abandoned workings. Without doubt the gas in this case came out onto the haulage road because of the same sudden drop in barometric pressure that occurred at Mowcaqua.

Another lesson that may be learned, is the fallacy of attempting to seal off gas in old abandoned workings with poorly built seals; also the desirability of keeping a close check on the tightness of seals, no matter how well they may be built. An aid to determining the tightness of seals is the taking and analyzing of samples of the atmosphere behind these seals at regular intervals. Areas that are tightly and effectively sealed in bituminous mines will lose almost their entire oxygen content through absorption in one or two months' time and unless there are leaks into the area, the oxygen content will remain at one or two per cent, or less. An increase therefore, in the oxygen content will indicate that there are leaks somewhere and that steps should be taken to find and stop them.

Still another lesson that may be learned from this explosion, is that even though the only open or non-permissible equipment allowed in a mine be confined to the intake aircourses, there is still danger of explosions if there are sealed workings containing gas, adjacent to the intake aircourses, because in this particular case if the gas had not been ignited by open lights, it

no doubt would have been ignited by the trolley locomotive when it made its trip into the 15th north entry.

RECOMMENDATIONS

Should the mine be reopened, the following recommendations are offered:

1. While the main west entries were driven with two returns as far as the 15th south, only one is being used, and since no brushing is done in the return entries the area is very much restricted and offers considerable resistance to the flow of air. It is recommended therefore, that the entries on each side of the haulage entry be cleaned up and used as returns, and the overcast at the 7th and 8th north torn out and installed at some point near the shaft bottom, and that an additional overcast be installed just outby the 15th north to convey part of the air to the end of the back entry on the north side of the main west haulage entry not now being used. If this were done it is believed that a much greater volume of air would reach the 15th south entry.

2. Inasmuch as both the 15th and 16th south and 15th and 16th north are in a long distance and it would cost considerable money to clean up the aircourses and to build proper seals at the worked out panels, it is believed it would be better to abandon them and seal them off at the main west. It is therefore recommended that unless the ventilation can be materially increased in the 15th and 16th north and 15th and 16th south, that these entries be abandoned and sealed off with heavy concrete or masonry seals.

3. That in all new development work at least three entries be driven on all main ~~entries~~ SYSTEMS so that two entries may be used as returns, with return entries on each side of the haulage entry, in order that there may be less restriction to the flow of air and to prevent any leakage from sealed areas flowing into the intake haulage roads.

4. That all main entry stoppings be securely built of masonry or concrete and be properly hitched into the ribs and floor.

5. That all overcasts be constructed of either concrete or brick.

6. That all old and abandoned workings be sealed off with concrete or brick seals not less than twelve inches in thickness and securely hitched into the sides and bottom and carried up to solid roof. That the roof for at least five feet on either side of the seals, be thoroughly and adequately secured by timber cribs or heavy posts and caps.

7. That each seal be fitted with a pipe and valve in order that samples of the atmosphere behind the seals may be taken.

8. That the seals be inspected at regular and frequent intervals and samples of the atmosphere behind the seals be collected and analyzed at intervals as an additional check on the tightness of the seals.

9. That all entries and rooms be kept rock-dusted so that the incombustible content of the dust shall at all times be above 65 per centl

10. That only permissible equipment be used.

11. That only permissible explosives fired electrically, be used, and that the shooting be done in conformity with the State Law.

12. That none but closed lights be used by underground workers.

ACKNOWLEDGMENTS

Acknowledgment is hereby made of the many courtecies extended to the Bureau of Mines' representatives, by Mr. Glenn Shafer, General Manager of the Pana Coal Company, Pana, Illinois, the officials of the Moweaqua Coal Corporation, and to the members of the Illinois Department of Mines and Minerals.

Great credit is due ~~to~~ the rescue team from the Superior Coal Company, Gillespie, Illinois, for the service ~~they rendered~~ GIVEN in helping to restore ventilation on the 16th north and also to the many volunteer workers who gave their services without any thought of payment, and particularly to Mr. Shafer and Mr. Simpson of the Pana Coal Company.

The Red Cross and the Illinois Central Railroad are also to be commended; the former for serving meals to the volunteer workers and the latter for furnishing bunk cars and dining cars.

Respectfully submitted,

C. A. Herbert,
Supervising Engineer.

APPENDIX

CONTENTS

LIST OF NAMES OF THOSE IN MINE AT TIME OF EXPLOSION

Chester Craven	Age 50	Miner	Moweaqua, Illinois.
Andy Corby, Sr.,	55	Timberman	do
Ross Portwood	50	Miner	"
Joe Jurick	48	Miner	"
Mike Crinock	52	Miner	"
Mike Negri	26	Machine Runner	"
George Ondes	41	Machine Runner	"
Loui Cabacchi	45	Miner	Stonington, Illinois.
Wm. Davidson	55	Miner	do
Andy Smorado	60	Miner	Moweaqua, Illinois.
Hugh Thompson, Jr.,	20	Miner	do
Max Jurick	45	Miner	"
John Hartsalla	28	Miner	"
Charles Hartman	23	Miner	"
Roy Heatherford	40	Miner	"
Andy Corby, Jr.,	25	Miner	"
Charles Roff	45	Tracklayer	"
Leonard Hartman	33	Driver	"
Raymond Sarver	23	Miner	"
Verne Sarver	21	Miner	"
Charles Monikus	60	Miner	Assumption, Illinois.
Jules Castinolius	46	Driver	Moweaqua, Illinois.
Kenneth Board	25	Miner	do
James Birley	46	Machine Runner	"
Zelva Davis	40	Motorman	"
George Burrell, Jr.,	27	Miner	"
Joe Krall	59	Miner	"
Mike Floski	25	Miner	"
Karl McDonald	23	Miner	"
Andy Supina	19	Miner	"
David Cooley	65	Miner	"
John Supina	41	Machine Runner	"
Joe Negri	21	Miner	"
Lynn Green	22	Miner	"
Charles Campbell	21	Miner	"
Ed. Campbell	50	Miner	"
Charles Woodring	25	Miner	"
Mike Tirpak	49	Miner	"
Andy Tirpak	18	Miner	"
John Corby	28	Machine Runner	Bethany, Illinois.
Andy Kapilla	30	Machine Runner,	Moweaqua, Illinois.
Mike Rogellis	43	Driver	do
Karl Dowd	36	Driver	"
Tom Birley	44	Driver	"
Chas. McDonald, Sr.,	62	Miner	"
Chas. McDonald, Jr.,	18	Miner	"
Mike Potsic	52	Miner	"
Andy Potsic, Jr.,	18	Miner	"
James Roff	19	Miner	"
Oliver Hudson	25	Miner	"
Roy Catherwood	39	Machine Runner	"
Arthur Dove	48	Machine Runner	"

(continued)

(continued)

List of Names of those in mine at time of explosion.

Sam Sigloski, Jr.,	Age 26	Miner	Moweaqua, Illinois.
Tom Jackson	55	Tracklayer	do
*Frank Floski	33	Cager	"
*Ibray Adams	48	Cager	"

*There were 56 men in the mine at time of the explosion; all were killed except two - Frank Floski, Ibray Adams.

DEPARTMENT OF COMMERCE
BUREAU OF MINES

GAS ANALYSIS REPORT

Bottle No. 1 and 2 Laboratory No. 57183-57184

Sample of Ordinary mine air

Mine Moweaqua Operator Moweaqua Coal Corp.

State Ill. County Shelby Township

Town (distance and direction from, and railroad) Moweaqua

Name of coal bed Illinois #5 Sec. , T. , R.

Location in mine Main west return

Method of sampling vac. bottle Date sampled 2/14/33 Hour 10 am

Velocity 325 Area 27 Quantity 8775 cu.ft.

Barometer: Inside Outside

Corrected to sea level: Inside Outside

Bulbs: Wet Dry Humidity %

Collector Herbert, Miller, and Mowry Mailed 2/16/33 Received 2/17/33

Laboratory No.	57183 1	57184 2	Ethane (C_2H_6)		
Carbon dioxide (CO_2)	0.25	0.24	Hydrogen sulphide (H_2S)		
Oxygen (O_2)	20.32	20.31	Unsaturated hydrocarbons (C_2H_4, etc.).		
Hydrogen (H_2)					
Carbon monoxide (CO)			Sulphur dioxide (SO_2)		
Methane (CH_4)	0.15	0.15			
Nitrogen (N_2)	79.28	79.30			
Total	100.00	100.00			

Remarks:

Date 2/21/33 (Signed) William P. Yant, Chemist.

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DEPARTMENT OF COMMERCE
BUREAU OF MINES

GAS ANALYSIS REPORT

Bottle No. 71-72 Laboratory No. 57185-57186

Sample of Normal mine air

Mine Moweaqua Operator Moweaqua Coal Corp.

State Ill. County Shelby Township

Town (distance and direction from, and railroad) Moweaqua

Name of coal bed Illinois #5 Sec. , T. , R.

Location in mine 16 north off main west

Method of sampling vac. bottle Date sampled 2/14/33 Hour 1:05 pm

Velocity 130 Area 5-1/2x4.3 Quantity 2860

Barometer: Inside Outside

Corrected to sea level: Inside Outside

Bulbs: Wet Dry Humidity %

Collector Herbert, Miller, and Mowry Mailed 2/15/33 Received 2/17/33

Laboratory No.	57185 71	57186 72			
Carbon dioxide (CO_2)	0.32	0.30	Hydrogen sulphide (H_2S)		
Oxygen (O_2)	20.12	20.09	Unsaturated hydrocarbons (C_2H_4, etc.).		
Hydrogen (H_2)					
Carbon monoxide (CO)			Sulphur dioxide (SO_2)		
Methane (CH_4)	0.25	0.27			
Nitrogen (N_2)	79.31	79.34			
Total	100.00	100.00			

Remarks:

Date 2/21/33 (Signed) William P. Yant,
Chemist.

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DEPARTMENT OF COMMERCE
BUREAU OF MINES

GAS ANALYSIS REPORT

Bottle No. 569-570 Laboratory No. 57187-57188

Sample of Normal mine air

Mine Moweaqua Operator Moweaqua Coal Corp.

State Ill. County Shelby Township

Town (distance and direction from, and railroad) Moweaqua

Name of coal bed Illinois #5 Sec. , T. , R.

Location in mine 16 south 50 ft. inby main west

Method of sampling vac. Date sampled 2/14/33 Hour 12:30 pm

Velocity 70 Area 28 Quantity 1960

Barometer: Inside Outside

Corrected to sea level: Inside Outside

Bulbs: Wet Dry Humidity %

Collector Herbert, Miller, and Howry Mailed 2/15/33 Received 2/17/33

Laboratory No.	57187 569	57188 570	Ethane (C_2H_6)		
Carbon dioxide (CO_2)	0.42	0.39	Hydrogen sulphide (H_2S)		
Oxygen (O_2)	19.66	19.76	Unsaturated hydrocarbons (C_2H_4, etc.).		
Hydrogen (H_2)					
Carbon monoxide (CO)			Sulphur dioxide (SO_2)		
Methane (CH_4)	0.22	0.22			
Nitrogen (N_2)	79.70	79.63			
Total	100.00	100.00			

Remarks:

Date 2/21/35 (Signed) William P. Yant, Chemist.

GOVERNMENT PRINTING OFFICE

M O W E A Q U A.

Peter Joyce.

-oOo-

On Saturday morning, December 24th, I reached the office about eight thirty. A few minutes after that, I received a call from Superintendent Clusker of the Springfield Mine Rescue Station saying that he had had a call from Moweaqua informing him that an explosion had taken place there. I asked who he had talked with; he said the "Mine Manager." I told him to get his team together and proceed with all possible dispatch to Moweaqua. I then called Inspector Fraser of Carlinville and told him to go to Moweaqua as quickly as possible, telling him what had happened. I also called Inspectors Marshall and English and told them, also, of the explosion. Then Glenn Shafer, of Pana, called the office and asked me if we had been notified of the explosion. I told him "Yes," and that I had told Jim Clusker to get his team ready as quickly as possible.

Director Millhouse then came in the office and I told him of what had happened and the action I had taken. He immediately put a call through to Moweaqua, telling them to keep us advised as to the developments.

A short time afterwards Director Millhouse, Inspector Marshall and I left for the scene of the disaster, leaving word for Inspector English to follow us. The morning was very foggy, the visibility was low, so we could not drive very fast.

Upon reaching Moweaqua, we went to the mine office and met Mr. Shafer, who was in charge on top. He told us that no word had been received from the men who had gone inside the mine, and that the telephone system had been destroyed.

Director Millhouse then took charge of the situation. We then examined the mine map and walked over to the escape shaft, where there was an exhaust fan in good working order. After inspecting the ventilating machinery, we told Shafer to get a man and put him on guard at the fan house, as we wanted to be notified immediately if the fan stopped. We then went to the hoisting shaft and examined the cages, both shaft and cages being undamaged, and it being the downcast, we could carry our air in with us as we proceeded.

The mine was roped off. Pressed against the ropes were the wives, children, and other relatives of the men below, awaiting the appearance of or word from their loved ones. It requires little imagination to complete the picture. Grief-stricken people on top - entombed men below - desolate homes behind them.

By this time, Inspector Fraser had joined us. Millhouse, Marshall, Fraser and I descended into the mine with approved flashlights and flame safety lamps. Stepping off the cage, things looked normal - no sign of violence anywhere. A trip of loaded cars, all topped, was standing on the bottom, and not a single chunk had been dislodged anywhere. We then proceeded inside, traveling the Main West entry, which is the intake and Main Haulage road, examining the roof and stoppings as we went.

The first evidence of disturbance was about sixty feet from the overcast, which crosses the intake at the 8th South seventeen hundred feet from the bottom of the shaft. The road was a little dirty at this point and evidently the explosion had tailed out here. The overcast was the first place to show violence - the bottom having been destroyed and blown upwards - the sides outwards - but repairments had been made by men who had preceded us, so whilst leaking, the overcast was in fair shape, everything considered. About four hundred feet inside the overcast a set of timbers had been blown down, reducing the sectional area very much at this point. Here we met William Harriott, the Mine Manager. He was laboring under a great strain and was nearly unnerved. We told him that a telephone system must be established as quickly as possible and that only closed lights would be permitted.

From here on, more falls of roof were encountered. Coming to the 14th South, a door had been destroyed and a temporary cloth brattice had been put up. From this point we advanced about sixty feet, where a big fall had occurred, blocking the whole of the entry, with very little air seeping through, on account of the choked condition. Being unable to advance any farther, we came back to the 14th, establishing that as our fresh air base.

Fifty-six men had entered the mine before starting time, which is eight o'clock, and fifty-four of them had left for the inside, leaving the cager and his assistant on the bottom, these two being the only ones whose lives were spared.

The working force, that day, was nearly evenly divided, twenty-six men working in the South Section, and twenty-seven men working in the North Section, together with the motorman. Some of these men had left the bottom shortly after seven thirty and rode in with the mule drivers, and some rode in the motortrip which left the bottom around seven forty. When the motorman reached the 15th South parting he split his trip, going into the 15th South with the men who worked in that section, leaving the North men waiting in the empties on the parting until he returned to take them in.

As the explosion occurred at eight o'clock, it was reasonable to assume that none of the men had reached the working face. Director Millhouse then decided to go

around the big fall between the 14th and 15th South by going up the back entry, which was the return airway. He arrived at this decision with the hope of reaching the men alive who were on the inside, realizing that the only protection he had was a flame safety lamp that would detect methane and carbon dioxide, together with his physical senses, having had plenty of experience in similar situations. He asked me to stay at the base, establishing a chain between him and me. So down the 14th South he went, taking Fraser and Marshall along with him. The return was free from falls except one that had occurred on the 14th near the return airway; so good progress was made until they reached the 15th South, where an overcast had been completely destroyed. They explored around this point. Going over to the 16th South here, they were driven back by the afterdamp, that was highly charged with carbon monoxide. The Director then ordered their retreat; and, after some time, Marshall came staggering out to the fresh air base, wild-eyed, and partly intoxicated by the afterdamp, and said "Oh, Pete, Jock Millhouse and Fraser have both gone down." I asked him if they had detected methane or carbon dioxide. He said "No." I told him to sit down and guard the brattice until he heard from me, as I was going inside after them.

As soon as I got down the 14th a little way, the air smelled bad, and was several degrees warmer than on the intake.

At the entrance to the back entry, where a fall had occurred, the top was pretty bad and was working. I then turned West down the entry until I came to Director Millhouse and found him lying on the bottom, unconscious. A man was with him - Bill Decker- (a Moweaqua volunteer.) I tried to arouse the Director but it was of no avail, the air at this point being very bad. So Bill and I got hold of him and dragged him down the entry. By the time we got down to the 14th, my breathing was belabored and I was feeling weak. Coming to the conclusion that the only thing that would save us all was to take down the brattice and short circuit the air, I shouted to Marshall to tear down the sheet, which was done immediately. In a very short time we felt the good air coming in on us, thereby relieving a bad situation.

We then dragged John to the base and began to give him artificial respiration. At this moment two fresh air men had come in from the bottom, so I told them that Fraser was down, in the back entry, and asked them if they would go and get him. "Sure," they said.

After working on the Director for some time, he regained consciousness and asked for water. Thinking that we might be unable to revive Fraser by artificial respiration, I decided to go and get the inhalator and also some water. About half-way out I met a man coming in with a bucket of water and told him to take it quickly up to the 14th South. I then went on top and saw Inspector English and told him of the situation below and asked him to get the inhalator and someone to help him carry it.

By this time, the Springfield rescue team was at the pit mouth, ready to go down; so the rescue team, Inspector English with the inhalator, two fresh air men and I went down the mine. On our way inside, near the overcast, I saw Marshall, half crouching on the rib. I spoke to him, and seeing that he was very sick, I told a man to assist him and take him on top to the office. (Marshall was then sent to the hospital by the doctor, but as soon as he was able to roll out of bed, he was back on the job again.)

We then traveled to the 14th South and were agreeably surprised to find Fraser conscious, but talking at random, Director Millhouse having directed the artificial respiration for him as soon as he was able to do so. After a while, I told the Director that as soon as he and Fraser were able to make it, we would go on top. I then told Fraser our plan, but he was unable to comprehend, being out of his head, so I told two men to look after him and bring him along when Millhouse and I started out, and if he attempted to go back inside, to stop him, using force if necessary, as he would surely lost his life.

Eventually, Bill Decker and I assisted Director Millhouse,and the other two brought Fraser along behind us. So on top we went.

The Director and I then talked about the job confronting us, so I called the rescue teams at La Salle and Duquoin, Inspectors White of Collinsville, Flynn of Duquoin, and Hodges of Danville, and Charles A. Herbert, Supervising Engineer of the United States Bureau of Mines, Vincennes, Indiana, all of whom arrived on the scene in due time. With Mr. Herbert came Mr. W. H. Forbes and Mr. Alex Miller, Associate Mining Engineers.

A consultation was held and it was decided that we would enter the mine immediately and make tests for carbon monoxide, so with approved lamps and carbon monoxide detectors, Herbert, Forbes, Miller and I entered the mine about eight P. M. on Christmas Eve. A very thorough examination was made for methane, carbon dioxide and carbon monoxide. We also made frequent examination of the roof, especially where large falls had occurred.

Most of the work being done at this time was on the big fall between the 14th and 15th South on the Main West. This fall was over three hundred and fifty feet long and had "fell up" as high as eighteen feet and had buried the mantrip that the motorman had left on the parting. A passageway had to be made through this - a most difficult job - because the top was weighting and continually falling, short spraggs being used for roof support, crossbars being out of the question. Even after a road was through to the 15th, many places were not four feet in sectional area, this resistance to the ventilating current being responsible for the small amount of air traveling from the 14th South to the inside.

At this time we were of the opinion that the men would be more quickly reached from the West end of the parting rather than the East. Later on, Director Millhouse discovered a drummy part in the bottom and had men to work there digging down to the cars, where, eventually, the first bodies were found, twelve in all, at this point.

The only place where carbon monoxide was found was in the return air course, the first place where we "got it" being the 15th South, where the overcast had been destroyed. So, with the test being completed, insofar as we were able to penetrate inside, we came out of the mine about two thirty A. M. The stars are shining brightly. This is Christmas morn. Gloria in Excelsis Deo; pax hominibus et in terra, bonae voluntatis. And here are all these men, women and children pressing against the ropes, straining to see if we have brought any of the men up with us. As we come through the lines, a sob is stifled. We can feel the stares of the people upon us. We bring no word other than that progress is being made to get to the inside.

At four A. M. the Director went inside, and on this shift, the first twelve bodies were located on the parting near the 15th South approximately three thousand feet from the bottom. The task of lifting the bodies out of the car and wrapping them for the stretchers was a very hard and disagreeable one, this work being done by John Simpson, Mine Manager of the Pana Coal Company, Pana, Illinois, and his assistants. After the bodies were made ready to be carried out, it took eight men to the stretcher, on account of the traveling way being in such a terrible condition. The bodies were then brought to the bottom and hoisted out of the mine.

After dinner, Charlie Herbert, Bill Forbes, Alex Miller and I went into the mine, the Director having decided that the next move was to reach the men who were in the 15th South.

The 15th South entry from the Main West to Back West was in bad shape, the entry being wide at this point, and a big fall of rock had occurred. The top was working, a lot of it being loose and entirely unsupported.

The work, now, was to level off the falls and stick up some props. That was the routine until this work had been done up to the Back West, where the ventilating system would have to be re-established for the 15th and 16th South.

After about a two hours stay, we decided to come on top and hold a consultation with the Director concerning these two entries. At this consultation we finally decided that the work of recovery in the South entry would best be served by the building of an undercast at the 15th South, so about eight thirty P. M. on Christmas Day, Charlie Herbert, Inspector Plumlee (who had just arrived) and I went into the mine again, (Plumlee to relieve Inspector Morgan, who was in charge of the working force at that time.) At

the 15th South Main West we met Morgan, who reported what was being done, so Herbert and I went to the place where the undercast was to be built. Before the undercast was completed, we made a trip down the 15th South. We went a distance of approximately two hundred and fifty feet, and found all the stoppings blown out.

The Duquoin rescue team was at the undercast, ready to go in and erect temporary stoppings, wearing the apparatus. We decided, however, that the work would be expedited by completing the undercast first and having the fresh air men build the stoppings and that the rescue team could extend the telephone lines from the 14th to the 15th South and also bring all the materials, (shiplap, brattice cloth and sacks of wood fibre) for the job of restoring ventilation in the 15th and 16th South, as the back entry was the best traveling way, it being very difficult to bring material up over the big fall on the Main West between the 14th and 15th.

During the building of the undercast, we decided to put a door in from the North side. This was a safety measure, because if the men inside the 15th North were trapped by a fall on the Main West between the 14th and 15th, they could come out through the door in the undercast and down the back entry, and also when the bodies were discovered, they could be carried down the back entry to the 14th South. This plan proved very effective. So, about ten thirty, Herbert and I went on top, Inspector Weir being in charge on top at this time.

On December 26th, the Mine Rescue crew discovered a motor with five cars, all on the track. Sixteen bodies were found here, some in the cars, and some lying on the floor. One boy was found with his arms around his father's neck, and that's how they died. This was fourteen hundred feet from the Main West and forty-five hundred feet from the shaft bottom. Further on, eleven more bodies were found at a point seventeen hundred feet from the Main West and forty-eight hundred feet from the shaft bottom. These men had ridden to the parting with the mule driver and had walked back for some distance before they met their death, it being evident that they had lived a short time after the first explosion. All of these bodies were wrapped and prepared for the stretchers by John Simpson and his assistants. They were then carried to the undercast, where the air was short circuited to enable the stretcher bearers to go down the back entry.

Before anyone was allowed in the return, the Director had W.H.Forbes make carbon monoxide tests inside the undercast and down the roadway to the 14th South. After this was done, an exploration trip was made down the 15th and 16th to see if any more men were in there. After satisfying ourselves that no one else was in these two entries, it was decided to seal both the 15th and 16th South and take the ventilating

current up into the 15th North. On the Main West at the 15th North another body was found.

To ventilate the 15th and 16th North, a door had been built to conduct the air down the 15th. The old door was demolished by the explosion, together with the frame, which was built of brick and concrete. A temporary cloth brattice was erected here and later replaced with a board stopping.

Inside the 15th North a short distance from the Main West gas was found two feet from the floor.

We then came to the conclusion that our hardest task was ahead of us, for, at this time, it was nearly the unanimous opinion that the explosion had been caused by a fire in the 7th room 12th West off the 16th North. This fire was discovered by the Mine Examiner making his rounds on the morning of December 23rd. He reported the fire to the Mine Manager, who then ordered rooms 7, 8 and 9 to be sealed. The fire had been caused by the firing of shots and the men were unable to get to the face to put it out. The idea of the seals was to exclude oxygen from the fire, thereby smothering it out. The men worked on the seals that day, and two men went back that night to complete them. This they did, and left this place in company with the Mine Examiner at six A. M. on the morning of December 24th.

The rescue team went in and opened up the 5th crosscut and put a brattice across the entry on the 15th. From there on, exploration trips were made, but on account of falls and other conditions, the advance was very slow. We were handicapped by the lack of ventilation. Inspector English and I measured the air with an anemometer at a point on the Main West approximately forty feet from the 15th North. Our reading showed two thousand four hundred cubic feet of air per minute. We then tried to get a reading inside the first crosscut on the 15th North, but the blades would hardly turn. Later on, Inspector Plumlee and I made a chalk test and we estimated that about one thousand cubic feet of air per minute was passing at this point.

Then Director Millhouse decided to tighten up all the stoppings, do some leveling on the falls, to reduce friction, and we then opened up a crosscut on the Main West, thereby reducing the length of the air course by approximately one thousand feet.

A test was made for gas inside the brattice at the 5th crosscut and a cap was got about two feet from the bottom. This was at the bottom of a large fall about one hundred and fifty feet long, so, unquestionably, the place was hot; - and we had to mark time for a while, whilst the ventilation was being improved.

On the night of December 27th, seven more bodies were found in a car at a point one thousand and twenty-five feet inside the 15th North and four thousand three hun-

dred and twenty-five feet from the shaft bottom. These bodies were prepared in the usual manner and brought out the next day, December 28th.

The next day seven more bodies were found at a point one thousand seven hundred feet inside the 15th North, which is approximately five thousand feet from the shaft bottom. With the recovery of these seven bodies, all the men had been accounted for. So at eight ten P. M. on December 29th, we came out of the mine and the last bodies were hoisted out immediately afterward.

REQUIESCAT IN PACE

The State Inspectors at Moweaqua were the following: English, Bagwill, Flynn, Fraser, Hodges, Marshall, Plumlee, Weir, White - and County Inspectors Kingston, of Shelby County and Stein of Perry County. Also Insurance Inspector Dave Brown.

The Mine Rescue teams who worked were: Supt. Skelton's of La Salle; Supt. Clusker's of Springfield; Supt. Robertson's of Duquoin; Supt. Anderson's of Benton; and the team of the Superior Coal Company of Gillespie, in charge of Charles Miller.

The fresh air men who worked on the job of recovery were from Moweaqua, Decatur, Kincaid, Pana, Hillsboro, and vicinity. All performed their alloted tasks cheerfully and willingly. They exhibited every fine quality that there is in men, and it makes me feel proud of being a miner.

Each Mine Rescue team furnished its own equipment.

Some of the equipment used was as follows:

Self-contained oxygen breathing apparatus; each man on the Mine Rescue team was equipped with one of these, which enables a man to work in an atmosphere that may be charged with deadly gases. The machine provides a supply of oxygen to replace the oxygen consumed in sustaining life, and carries an absorber to remove the carbon dioxide exhaled from the lungs.

Burrell All-Service Gas Masks: protect the wearers against carbon monoxide and all other poisonous gases when there is sufficient oxygen present to support life.

Flame Safety Lamps: for the detection of methane, also carbon dioxide.

Mine Safety Appliances Carbon Monoxide Detector: an instrument for determining the presence of carbon monoxide in the air. This is a deadly gas and is present after explosions, having neither oddor, taste nor odor. Breathing an atmosphere containing two tenths of one per cent would certainly cause death in a very short time. Its detection, therefore, is a matter of vital importance.

Canaries also were used to detect C O.

Edison Electric Cap Lamps and approved Flashlights.

The Edison Cap Lamps (seventy-five in number) were furnished by Jack Fleming of the Mine Safety Appliances Company, he getting twenty-five of these from the Old Ben Coal Corporation and fifty from the Bell and Zoller Coal Company. Eleven came from the Vincennes Station of the United States Bureau of Mines and were brought by Mr. Herbert and his colleagues. Twelve were from the Superior Coal Company at Gillespie and twelve from the Pana Coal Company, Pana, Illinois. Mr. Herbert and his aides also brought first-aid equipment, carbon monoxide detectors and Burrell Gas Masks.

An H-H Inhalator was Brought over by the Decatur Fire Department. This H-H Inhalator was developed by Doctors Henderson and Haggard of Yale. It consists of two cylinders filled with Carbogen (5% CO_2 in oxygen) each holding sixteen cubic feet at one hundred and thirty-five atmospheres. They are coupled to a manifold in which the high pressure gauge is inserted; by operating closing valve of cylinder, Carbogen flows to high pressure reducing valve and then through measuring valve having dial marked in liters to indicate rate of flow; thence into rubberized cloth reservoir, from whence it flows to the patient through rubber hose and fitted face mask with celluloid hood, pneumatic face pad and head harness; the inhalator is an improved pulmotor, using CO_2 along with the oxygen to induce breathing.

Ernest Prudent and Andrew McMurtrie of the Bell and Zoller Coal Company erected one of their Company's charging racks to re-charge the electric cap lamps.

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A Commission had been appointed by Director Millhouse to inquire into the cause of the disaster, so on January 4th this Commission went back to the mine. Accompanying them were Director Millhouse, W. H. Forbes, Alex Miller, Glenn Shafer, John Simpson, H. C. Stelling and myself.

Inspector English, with the Burrell, making methane tests at a point seven hundred feet inside the 15th North found nine-tenths of one per cent. Another test was made at a point thirteen hundred feet inside the 15th North that showed about two-tenths of one per cent. This entry, on our previous visit, was loaded with methane. Later on, John Simpson, in making tests with a flame safety lamp at a point sixteen hundred feet inside the 15th North, found carbon dioxide from the bottom to within two feet of the roof.

The following is a copy of the report of the Commission:

Springfield, Illinois,
January Fourth, 1933.

Hon.John G, Millhouse, Director,
Department of Mines and Minerals,
State House,
Springfield, Illinois.

Sir:

We, your Investigation Commission, appointed to inquire into the cause of the disaster at the Moweaqua Coal Corporation's Mine Number One, Moweaqua, Illinois, at eight A. M. on December twenty-fourth, 1932, beg to submit for your approval the result of our investigation as follows:-

Our investigation convinces us that the explosion originated from the 5th East off the 15th North by methane gas being released as a result of a fall of roof and concretionary nodules falling against the seals, breaking them outward, the methane gas being carried into the air current inward to the men, who had just passed by in a car hauled by a mule. The men, arriving at the parting, in getting out of the car, evidently ignited the gas with their open lights, the flame traveling backward on the 15th North coming in contact with a large body of gas located at that point. The explosion, at this point, seems to have divided, going North and South.

We found the first empty car going in on the parting standing on its end, showing the force of the explosion had traveled that way. The spraggs in the loaded car wheels being in reverse position indicated that the loaded cars had been pushed back towards the North. From the 5th East, traveling out South, indications showed that the force of the explosion had traveled outward also.

The 3rd and 4th East stoppings had been destroyed. On our first entrance in there, methane gas was found. At the 1st and 2nd off the 15th North the stoppings had been destroyed and at the inside of the 15th North three feet of explosive gas was found outside of two old rooms.

There was evidence that gas had been given off in large quantities in all of these openings, which the first exploration proved. The greatest violence had taken place at the mantrip where twelve bodies were found outside of the 15th South in the cars and had radiated in all directions from that point, with the exception of the Main West inside of the 15th North and was less violent on the inside workings than it was throughout the mine.

We are convinced that due to a low barometric pressure taking place immediately after eight A. M. a drop of .3 of an inch occurred at that time would materially cause gas to exude in greater volume from the old workings at this point.

The explosion in the 5th East no doubt forced gases from some of the old workings on the men located in the mantrip at the 15th South and being ignited by their open lights the explosion radiated with severe violence from that point in all directions.

There is also the probability that coaldust intensified the explosion, but we have found little evidence of coaldust being an active agent.

The violence of the explosion was such as to cause the roof to fall in the 15th South a distance of eight hundred feet and outwards to near the 11th North towards the shaft bottom and into the 15th North for a distance of fifteen hundred feet, and from there in, the effect of the explosion decreased.

We are convinced that this disaster was caused by an explosion of methane gas, resulting in fifty-four men losing their lives.

(Signed) Thomas English,State Mine Inspector-at-Large,
" John K. Fraser, State Mine Inspector 6th District
" James Weir,State Mine Inspector 10th District,
" W. L. Morgan, Economic Investigator.

The Commission decided that this was a gas explosion. In this I concur. I also believe that the compressing of the air (immediately preceding the explosion) blew down the timbers, which caused the roof to fall, thereby releasing additional methane to feed the explosive flame.

The bottom men "felt" a "concussion", but we do not know of anyone on top who heard it. Also neither smoke nor dust came out on the bottom.

Reference was made in the Commission's report to a sudden drop of three-tenths of an inch of barometric pressure on the morning of the explosion. This drop was pretty general, for on the same morning, at Virden, sixteen men were burned with gas whilst riding in a mantrip at seven fifteen A. M. on the morning of the 24th, traveling in on the main intake, the gas evidently leaking out from old works.

An inquest was held on the victims at Taylorville on January 10th. The Foreman of the jury was Mr. John Stanley of Taylorville, a practical mining man. The following verdict was rendered:

CORONER'S VERDICT.

"Death was caused by a gas explosion in Moweaqua Coal Corporation Mine No. 1, December 24, 1932. We further find from evidence that gas had accumulated in the old works and had been walled off by concrete stoppings and a leak probably occurred, caused by falls or a change of atmospheric conditions and the gas was ignited by a flame."

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This mine is known as the Moweaqua Coal Corporation Number One. It is in Moweaqua, Shelby County, and was opened in 1890. The shaft is six hundred and twenty feet deep, and is in a basin. The main entries were driven East and West, both going to the rise. The East side is now abandoned, the West side of the mine working only. The coal seam rises to the 15th South Main West approximately fifteen feet. The seam is Number Five. The method - room and pillar - machine mined and shot down. Haulage was by mule and motor. Open lights were used.

In 1932 coal was produced during the first three months. Then the mine was closed down and did not re-open again until September, when production continued until the time of the explosion. The total production for the year was 37,433 tons; the number of days worked was 113, and the number of men on the payroll 105.

In 1931 the tonnage produced was 23, 507, and the number of days worked 73.

The mine was regularly inspected by the State Mine Inspector and the County Mine Inspector.

The State Inspector examined this mine on October 18, 1932, and the County Mine Inspector examined the mine in November, 1932.

Prior to the explosion I had sent out letters of warning and advice to all our Inspectors. They are as follows:

Springfield, Illinois,
August 11, 1932.

Dear Sir:

The miners and operators have reached an agreement and signed a contract. Consequently, the mines are about to resume operations, and by reason of long idleness, (upwards of four months,) their re-opening is fraught with much danger, so every precaution must be taken to prevent the loss of life and limb by safe-guarding the mine workers in every possible manner.

Where the ventilating fan has been stopped, it should be started as soon as possible and run continuously, to drive all methane and black damp from the mine before men are allowed to enter. Cages, winding ropes and safety catches must undergo a rigid examination before anyone is lowered into the mine. The mine must be examined in its entirety by a certified man, to see that the amount of air required by law is provided, supplied, and maintained.

Inspect all places for falls, dangerous roof, or accumulation of gas, and watch carefully all sealed areas, stoppings and fire-walls, examine all roadways leading to the escapement shafts or other openings for the safe exit of men to the surface.

Those who work on the coal should examine the roof, face, and ribs, and take down all loose material, or secure it, before doing anything else.

All roadways should be cleaned and rock-dusted or sprinkled.

All trolley and positive feed wires should be maintained at a proper height and safely guarded from persons coming in contact therewith.

Many haulage accidents will be eliminated if tripriders refrain from coupling on the fly.

Unauthorized persons should not handle nor attempt to operate motors or any machinery.

A sufficient number of props of suitable length should be supplied at the working face at all times.

Where coal is shot off the solid all holes should be properly placed and prepared and the amount of powder used in each shot should not exceed the lawful limits.

Shotfirers should examine all holes before shooting and should satisfy themselves that the shots are practicable and properly tamped with incombustible material before they are blasted.

It is to be hoped that the splendid record we have made so far in 1932 will be maintained, if not bettered. Up to now, 902,760 tons of coal have been mined for each fatality.

I want you to interest the operators and miners in your district in a Safety campaign to eliminate all known dangerous conditions and unsafe practices, to the end that life, limb, and health may be preserved and property protected.

Yours very truly,

(Signed) PETER JOYCE,
A S S I S T A N T
D I R E C T O R .

ASH

Springfield, Illinois,
October 31, 1932.

TO ALL STATE MINE INSPECTORS:

From now on, we can look forward to increased activity in the coal industry;many mines are re-opening and production is on the up trend.

With the advent of low temperatures (a period when the ventilating curren no longer deposits moisture in the mine, but, on the contrary, robs the mine of its moistur leaving it dry and dusty, thus making it the most dangerous season of the year concerning coal mine operation,) explosions are more liable to occur at this period than at any other time.

It is extremely important that everyone in the industry, coal operator and mine worker alike, should give serious thought to their safety problems, because the inherent peril of the production of coal continues, producing all too many accidents, both fatal and non-fatal; the reduction of these accidents to the lowest possible minimum should be the concern of all, and to this end I want you to interest the miners and operator in your district in a safety campaign to eliminate all dangerous conditions and unsafe practices, as many of the accidents occurring are of the preventable kind.

The mines in your District which generate methane gas should be carefully examined, and a sufficient amount of ventilation, properly distributed, should be maintained at all times to dilute and render harmless all gases which are given off.

All escapement shafts must be closely watched in order to see that they are not blocked by ice accumulations, thereby obstructing the free and safe passage of the men, and the ventilating current. Also, passageways leading to the escapement shaft must be clear from falls, debris, and water.

The roadways should be kept free from coaldust, the same to be loaded out, and rock-dusting should be recommended as a safety measure, (for nearly all haulageways are on the return airway,) the danger from arcing and sparks being ever present.

In mines where mechanical loaders or conveyors are operated, frequent examination of the coal face and roof should be made, because of the inability of the men employed on the machines to hear movements of roof or workings of the face; and no person or persons should be permitted to work in any place where bad top obtains except for the purpose of taking down or securing same.

All trolley and positive feed wires should be maintained at a proper height and safely guarded from persons coming in contact therewith; many haulage accidents will be eliminated if tripriders discontinue coupling on the fly, and unauthorized persons should not handle nor attempt to operate motors or any machinery.

Blasting of coal is dangerous under the most favorable conditions, and an extremely small percentage of methane gas, assisted by accumulations of coaldust, may often lead to disastrous results.

Explosives that are used in the preparation of shots should be handled with the utmost care. The quantity of powder to be used in any shot should be carefully determined, and in no case should exceed the lawful amount.

Where coal is "shot off the solid," caution should be exercised in the drilling of holes, that no part of the hole will be "on the solid" or "dead."

The frequent occurrence in solid-shooting mines of "windy" or blown-out shots, (which often result in loss of life and destruction of property,) may in part be eliminated by a close observation of the law relating to the drilling, preparation and shooting of all blasts.

Shotfirers should examine all holes to see that they are properly placed and prepared before firing them.

All holes should be tamped from the powder to the mouth of the hole with non-combustible material and no one except the shotfirers should be in the mine when shots are being fired.

In mines where safety lamps are used, the practice of hanging them on timbers should be discouraged because of the tendency to overheat, which may have serious consequences.

The Department desires to do everything possible to prevent the loss of life or limb and the destruction of property. To this end, we expect all our Inspectors to demand that every precaution be taken to safeguard the lives and health of the men engaged in the coal industry.

Yours very truly,

(Signed) PETER JOYCE,

A S S I S T A N T
D I R E C T O R.

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Moweaqua was the third greatest disaster that has happened in the State and stands out in bold contrast to the others because of the fact that every man who left the bottom was killed. This explosion swept through the intake airway for thousands of feet, killing everyone in its path, destroying the ventilation system to a point one thousand seven hundred feet from the bottom and in its violence brought down the roof in one instance for a distance of seven hundred feet. In the other great disasters there were some survivors.

Twenty-one men came out of Cherry after being imprisoned for a week. Men also escaped from the Black Diamond.

It may be of interest to state that the three greatest disasters in Illinois were caused by fire, water and gas.

At Cherry, on November 13, 1909, two hundred and fifty-six men lost their lives through a mine fire.

At Braidwood, the Black Diamond mine, sixty-nine men lost their lives through surface water rushing in and engulfing them. This took place on February 16,1883.

In this Moweaqua disaster, a gas explosion caused the death of fifty-four persons.

We wish to thank everybody who aided in the work: - Mayor Howard,- the Red Cross,- members of the Decatur Fire Department, - and the mine workers and mine officials, - all of whom labored so arduously. Also the various coal companies for the equipment they so kindly loaned.

Let us hope that we never again will experience the horrors of another Moweaqua.

Thus, another chapter of mining history is closed.

* * * * * * * * * * *

C.M._____

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
WASHINGTON

CONFIDENTIAL MEMORANDUM
(Not for Publication)

TO MEMBERS OF THE SAFETY DIVISION:

SUBJECT: Preliminary report on explosion in the Moweaqua mine, Moweaqua Coal Corp., Moweaqua, Illinois.

At 8:00 a.m., December 24, 1932, a gas and dust explosion occurred in the Moweaqua mine of the Moweaqua Coal Corp., Moweaqua, Illinois, resulting in the death of 54 men. There were 56 men in the mine at the time of the explosion, the 2 men at the bottom of the shaft being the only ones to escape. These men were not injured and escaped unassisted. The electrician had just gone to the surface for repair parts and thus escaped.

The mine, that is owned by the Moweaqua Coal Co.,, had been shut down for some time due to the condition of the coal industry; however, it had subsequently been leased by them to the operators, that is, the Moweaqua Coal Corporation, which is in reality a community affair. It was started in order to be worked by the citizens of this town. The mine is opened through two shafts. There were a total of 104 employees, 88 of whom worked underground. However, due to the fact that it does not require this many men to produce the coal, all men did not work all the time. The mine produces a maximum of 400 tons of coal per day, all of which is sold to truck and domestic consumption. The mine had been classed as non-gassy by the State Department of Mines and was operated with open lights and non-permissible equipment. The mine is dry and it is reasonable to assume that there was considerable coal dust; however, due to lack of ventilation the only roads traveled were the intake haulage roads, which are so badly

paved that it was impossible to determine the condition of the entries at the time of the explosion. Coal is gathered by mules and haulage to the partings at the shaft bottom is effected by trolley locomotives. The coal is shot with black blasting powder and fuse by shot firers after the day shift has left the mine. The main roads had been rock-dusted some years prior, but doubtless there was not enough left to have any effect in retarding propagation of an explosion. No watering is used underground. Ventilation was effected by a steam-driven fan run exhausting, the hoisting shaft and main haulage roads being intake and the air shaft being return. At the time of the explosion approximately 35,000 cubic feet of air per minute was passing down the hoisting shaft. Air losses were doubtless high and probably only a small percentage of this quantity was reaching the face workings.

The roof is weak and requires considerable timbering along the haulage roads. Although much of this timber is blown out and allows considerable roof to fall, the violence was not believed to have been very great. About 2:00 a.m., December 23, a coal fire at the face of No. 7 room, 12 west, off 16 north, was discovered by the fire boss. This was sealed by building a single dirt seal. During the night of December 23 additional seals were built just outby those that were placed the previous day. These additional seals were completed about 6:00 a.m. the morning of the explosion. This fire was at first thought to have been the cause of the explosion, but evidence gathered later did not bear this out.

On the morning of December 24, barograph records at Decatur, Illinois, 50 miles from Moweaqua, showed a sudden drop of .3 inch in barometric pressure at 8:15 a.m. This low pressure was traveling north at the rate of 30 miles per hour and thus probably occurred at Moweaqua at 7:45

a.m., or 15 minutes before the explosion occurred.

It is believed that the low barometric pressure allowed gas to escape from old, improperly-sealed workings, and that the lights on the caps of the men in the man-trip ignited this gas.

This memorandum, which is based upon a preliminary report by C. A. Herbert, is confidential and must not be published.

C. W. OWINGS

Approved:

D. HARRINGTON

CHRISTIAN COUNTY COURT HOUSE

TAYLORVILLE, ILLINOIS

January 10, 1933

C O R O N E R'S I N Q U E S T

of the

MOWEAQUA MINE DISASTER

of

December 24, 1932

State of Illinois :
: ss
Christian County :

CORONER'S INQUEST

Held in the County Court Room in the city of Taylorville in the County of Christian and State of Illinois, on the tenth day of January, in the year of our Lord, one thousand nine hundred and thirty-three, on the body of Andy Turpac, deceased, et al.

s/d Gilbert F. Nolan
Coroner

PRESENT

JEFF FRANCH)
))
R. E. McLEAN)
)
CLAUDE ADAMS) JURY of INQUEST
)
JACOB BILYEU)
)
GLENN GORDEN)

JOHN STANLEY, Foreman

APPEARANCES:

JOHN G. MILLHOUSE, for the Department of Mines and Minerals, State of Illinois.

JOHN W. COALE, State's Attorney, Christian County, Illinois.

EXAMINATION by JOHN W. COALE, State's Attorney.

GLENN A. SHAFER, being first duly sworn, according to law, testified as follows, to-wit:

Q. What is your name?

A. Glenn. A. Shafer.

Q. Where do you live?

A. Pana, Illinois.

Q. What is your business?

A. Coal operator.

Q. You know of the Moweaqua mine?

A. Yes sir.

Q. Can you tell the ownership of the mine?

A. The mine property is owned by the Moweaqua Coal Mining and Manufacturing Company.

Q. A corporation?

A. Yes sir.

Q. On the 24th day of December, 1932 what happened at that mine as you know?

A. On that morning, just shortly after 8 o'clock, I was talking to our mine manager underground at Pana, from the engine room on the telephone, and he told me that there had been quite an amount of black damp shown up in our mine. I had noticed the barometer just before. I knew that it had a decided drop. I told him not to take any chances with the men and if there was any trouble to bring them on out. That is our own men at Pana. He said all right he would. He had just left the telephone when they came running up to me from the office and told me they wanted me at Moweaqua just as quickly as possible, that they had had an explosion. I told them all right, just as soon as I could get my mine manager and two or three other men out I would come up. We left Pana and arrived at Moweaqua approximately 10:30. I think between 10 and 10:30.

Q. What did you find then? Just go ahead.

A. We arrived at Moweaqua. They told us that the bottom men heard a great rumble inside; wind had blown out to the bottom, and the bottom men had tried to get inside but were unable to. So I told my mine manager with two of his other men to immediately go below and see what

could be done. I told them I would stay in the office and do my best to take charge of things, and for them to let me know immediately of anything he needed. He went below at approximately 10:30 or 11 with two of his men to see what could be done. Shortly afterwards Mr. John Millhouse, Director of the Department of Mines and Minerals, came and took charge of the entire program of rescue. I was working under him on top trying to procure all men and materials needed by him in his work.

Q. Mr. Shafer, was the mine, at the time of the disaster, under your jurisdiction?

A. No sir, it was not.

Q. You didn't have any right or authority to direct working at that time?

A. No sir, I didn't.

Q. On what basis was the mine operated?

A. On a royalty basis.

Q. To the Shafer interest?

A. Yes sir.

Q. The mine was being operated, as I understand it, by the citizens of Moweaqua paying royalty to you?

A. Yes sir.

Q. Anything further Mr. Shafer that you think of? You stayed at the mine until the rescue work was done?

A. I Stayed at the mine. I was only away during that six days three and one-half hours when I attended the funeral of my wife's father in Pana. Otherwise I was at the mine the entire time.

Q. Anyone recovered from the coal mine alive?

A. None that I know of.

Q. Do you know Andy Tirpak?

A. Yes sir.

Q. Did you identify his body?

A. I did not see any one of the bodies.

EXAMINATION BY JOHN STANLEY, Foreman of the Jury.

Q. Is the mine owned by you?

A. The mine property is owned by the Moweaqua Coal Corporation, of which

I have a certain amount of stock; Moweaqua Coal and Manufacturing Company rather.

Q. Has it ever been transferred from you to the corporation in Moweaqua.

A. No sir.

Q. You still own the mine?

A. The Moweaqua Coal Mining and Manufacturing Company owns the property.

Q. You are part owner?

A. Yes sir.

Q. What arrangement of the coal mined have the operators of the mine?

A. We had an operating lease on a royalty basis.

RE-EXAMINATION by JOHN W. COALE.

Q. You have before you a map. Will you explain it to the reporter?

A. This is a blue print of the underground work of the Moweaqua mine, prepared by William Lewis, mine surveyor, showing all of the underground works of that mine brought up to date. The colored sections marked are the approximate locations, in red, of the falls on the Main roadways as described to me by John Simpson, Mine Manager of Mine Number One of the Pana Coal Company, who took part in this work of rescue. The yellow markings show the approximate location of each group of men found.

CHARLES J. SMITH, being first duly sworn according to law, on his oath testified as follows, to-wit:

Q. Please state your name.

A. Charles J. Smith.

Q. Your business?

A. Mine examiner.

Q. Where did you work?

A. Moweaqua Coal Mine at Moweaqua.

Q. On the 24th day of December, 1932 did you work at the mine?

A. I did.

Q. What time did you enter the mine

A. Seven o'clock Friday evening.

Q. That is the evening of the 23rd?

A. Yes sir.

Q. How long were you in the mine?

A. Until 6:30 Saturday morning, the 24th.

Q. Please state to the reporter your duties, what you did that particular night, what you experienced?

A. On Thursday evening I entered the mine on my inspection, and on examination I run across a fire at one o'clock Friday morning so I called the mine manager after I seen I could do nothing with it. He came out with some men to work. I stayed until my time was up. On Friday evening, December 23rd he called me about 5:30 and wanted to know if I would go down with some men to do some extra work. I told him I would. So I took these men and went down at seven o'clock. Went inside where they was to work. I examined the place and put the men to work. I stayed with those men until twelve o'clock. I left them there where they were working and went on my examination, and I examined the mine on the morning of the 24th. It isn't necessary to tell the route that I took?

Q. Yes I would like for you to.

A. I went in the South section on my first examination. I examined the South section and found nothing on my route there. Then I went to the Straight West Section, examined there and found nothing and I went on up to the North Section which was my last section to examine and found nothing there, only a smell from the fire, which is always found after any smoke fire, but it was not serious. I came on down to the place where the men were working that I had left at twelve o'clock. I got there at 5:15. I stayed there and worked with the men until six o'clock and there was nothing unusual so I told the men it was time to go home. We left at six and went to the North parting where our clothes were. We put our clothes on and left the parting ten minutes after six. We arrived at the bottom of the mine. I went to the air shaft and told the other three men to go feed the mules. I returned and went to the bottom, seen that there was a lot of water in the sump. I called the engineer and told him to give me the little generator and I started to pump. By that time the other three men had come to the bottom and we went on top. We went to the wash house, washed and changed our clothes. I went to the office, signed up my books, talked with the mine manager and went home. I got home probably at 7:30. I sat down to eat lunch and the telephone rang and my wife told me it was Will Harriett, who wanted me to come back to the mine immediately; that something was wrong. I went back to the mine as soon as possible, probably I was there ten minutes after eight. I got my safety lamp, and me and Mr. Harriett, the mine manager, went below. I asked the men on the bottom of the mine what happened. They said they didn't know; that they couldn't get any communication from the mine.

I said what did it act like. They said a small puff of wind went up the shaft. That is all they could tell me. Myself and Mr. Harriett and Frank Floski, bottom laborer, went inside. We came to the first over-cast which was blown out. We stopped to repair it. We had to send to get repairs and by that time help began to come, and as help began to come to repair this I advanced. I got to the 10th North where there was a trip door of the old workings. It had blew away and stopped to repair it before advancing. By that time more help had arrived from Pana. We advanced to the 14th South which door had blown away. We stopped to repair it. Then Mr. Millhouse and his rescue team had come from Springfield and had taken charge of the situation. From there I obeyed orders from Mr. Millhouse. I was in the mine 27 hours the first hitch, and they sent me to identify the bodies. I came back the next morning, the 25th, after identifying the bodies. I went in the South Section with the rescue team where they located the twenty-seven bodies. I was sent back. I t was to identify the 27 bodies. I was directed by Mr. Millhouse to wait for further call to go below. That is about all I have to say. I went up until after they had all the bodies out.

Q. You stated you discovered a fire? When did you discover a fire in the mine?

A. On Friday morning, December 23rd, at one o'clock.

Q. Approximately where from the shaft was that point of fire?

A. West and North.

Q. How far each way approximately?

A. I could show you on the map. I don't know the distance exactly.

Q. Well approximately?

A. About three quarters West and approximately 2800 feet North.

Q. You know where the county line is from the shaft itself?

A. Yes.

Q. About how far from which direction?

A. West of the mine entrance.

Q. About how far?

A. I judge one half quarter.

Q. Whee any of the bodies of the men killed found in Shelby County?

A. There were no men killed in Shelby County.

Q. All killed in Christian County?

A. They were.

Q. In your opinion what started the fire?

A. By a shot.

Q. Was that point where the new workings were being prosecuted?

A. I don't understand you.

Q. I mean, was the fire where the coal was being removed from the mine?

A. Yes sir.

Q. What had been done in reference to stop same?

A. The same procedure that we always had taken. You want me to explain it?

A. Yes.

A. We put up braddish, as far as possible and put in dust stoppings?

Q. Now explain those terms. What is braddish?

A. That is cloth for air current.

Q. And you spoke about stoppings

A. That is to build walls, to wall the fire back and check it.

Q. The purpose being to smother the fire?

A. Yes.

Q. How big an area was burning?

A. Well, we could not get up to the fire. It was up to the face. The room was 200 feet, and the smoke was so heavy we could not get into the face. So we just started to wall it off in the mouth of the room.

Q. Did you completely wall it up and make it airtight?

A. As near as possible, yes.

Q. Is that why you had two men there working?

A. Yes sir.

Q. That was their job?

A. Yes sir.

Q. You stated as you entered the mine after being called back you advanced to an overcast. Will you state what direction from the mouth of the mine or the bottom of the shaft the overcast was?

A. West.

Q. Was it on the Main West entry?

A. Yes sir.

Q. And approximately how far from the bottom of the shaft?

A. One thousand feet.

Q. And beyond the West of the county line? You may refer to the map here if you wish.

A. Well, I don't know just the distance West of the County line.

Q. Will you describe what that over-cast appears to be for?

A. That is for the return air.

Q. Is it timber or what?

A. This is a concrete over-cast for return air.

Q. You stated the over-cast had been blown out?

A. Yes sir.

Q. Could you tell from looking at it from what direction the force had come that blew it out?

A. No sir.

Q. Did you encounter any falls in your advancement into the mine?

A. Yes.

Q. Where did the fall first start?

A. Speaking now of the West Entry, about 40 feet East of the 10th North.

Q. Beyond that over-cast - West of the over-cast?

A. Yes sir.

Q. What was the appearance of the fall when you first approached it?

A. The timber was out and rock on the track.

Q. The roof had caved in?

A. Yes sir.

Q. Will you describe the trap door at the 10th North you spoke about, how it worked?

A. It is on hinges and it had broken away; also the frame had blown into the 10th North.

Q. As I understand it 10th North is a side road off the West and leads into the mine?

A. It was the old section.

Q. What purpose did the trap door serve?

A. To get rails out on the roadway.

Q. Was there any work in the 10th North at all? Anybody go inthere?

A. Just at times to get rails.

Q. It had been abandoned?

A. Yes sir.

Q. You stated that you had advanced to the 14th South. What was the condition of the entry from the 10th North to the 14th South?

A. Falls.

Q. All the way?

A. Yes sir.

Q. At the 10th North could you tell from your observation from where the force had come that had blown down that door?

A. From the West.

Q. The door at the 14th South was blown. Could you tell from your examination there where the force had come?

A. From the West.

Q. Was the 14th South an entry that was being worked from?

A. No sir.

Q. Where did you first discover any men?

A. At the 15th South turn.

Q. Will you describe what you experienced there when you first found any men?

A. There were a large fall there on aman trip, and found bodies there in the man trip.

Q. In cars or out?

A. Yes sir.

Q. What condition were the bodies? Was life crushed out by rock or by explosion?

A. By explosion.

Q. Were they exposed or rock on them?

A. Rock on them. The cars were covered.

Q. Were you present where every man was found?

A. No sir.

Q. Did you know Andy Terpak in his lifetime?

A. Yes sir.

Q. Did you identify his body?

A. Yes sir.

Q. You knew each of the fifty-four men in the mine?

A. I did.

Q. Did you identify each of the fifty-four men?

A. Yes sir.

Q. Did you identify the bodies of:
Andy Terpak,
Charles McDonald, Sr.,
John Corby
Dave Cooley,
George Ondes,
Raymond Sarver,
Lewis Tabacchi,
Joe Krall,
Andy Corby, Jr.,
Chester Craven,
Andrew Smorada,
Charles Roff,
John Hostella,
Andrew Kapella,
George (Earl) Dowd,
Carl McDonald,
Art Dove,
Mike Potsick,
Andy Potsick,
Sam Seglocki, Jr.,
Mike Floski,
Mike Terpak,
Roy Heatherford,
Charles Hartman,
Verne Sarver,
Kenneth Board,
Andy Corby, Sr.,
Joe Jurick,
Charles Yonikus,
Henry Hugh Thompson,
Zelva Davis,
Wm. Davidson,
Joe Negri,
Chas. Campbell,
Tom Birley,
Mike Raugellis,
Ed. Campbell,
Roy Catherwood,
Andy Supena,
Chas. Woodring,
John Supena,
James Birley, Mr.,
Lotsie (Hex) Jurick,
George Burrell, Jr.,
Michael Negri,
Ross Portwood,
Lenard Hartman,
Julius Castagnoli,
Mike Krajnak,
Tom Jackson,
Lynn Green,
Oliver Hudson,
Chas. McDonald, Jr.,
Jim Roff,

A. Yes.

CROSS-EXAMINATION BY JOHN G. MILLHOUSE

Q. Now I will ask you, Mr. Smith, was this a gaseous mine?

A. No sir.

Q. Was there any gas locked in the mine in any place sealed off or unsealed?

A. Yes sir.

Q. Tell the jury about where this gas was generally found.

A. A year ago last winter the 5th and 6th East off the 15th North which the roof had cracked over the wall and let out a little gas I found it at a time when it had done no damage so the orders were to tap that wall with two inch pipes.

Q. What kind of walls were they?

A. Concrete dirt stoppings and concrete walls.

Q. The inside wall was dirt?

A. Yes sir.

Q. After the breaking down of that wall what kind were put on the outside

A. Rebuilt it.

Q. How thick was it?

A. Eight inch.

Q. What kind of walls did the 3rd and 4th East have?

A. Concrete blocks, dirt stoppings and concrete blocks.

Q. Did you ever make an examination of these walls in your examination?

A. Yes sir.

Q. Did you find them giving off gas in any quantities?

A. No.

Q. Was there much gas given out on the inside workings?

A. No sir.

Q. Was there any gas given off on that fire you sealed off the day before the disaster?

A. No sir.

Q. Now in coming out of the mine on the morning of the 24th did you come alone or did the men come with you?

A. The men came with me.

Q. Walk or ride?

A. Ride.

Q. Were you sitting down low or high in the car?

A. We were low, but the driver was up.

Q. How far from the roof?

A. He just missed the roof because it is low through there.

Q. If any gas was given off 6th East then he would have known at that time?

A. He would have.

Q. Evidently there was no gas there at that time?

A. No sir.

Q. After the explosion do you know or have you been told that large bodies of gas were found in 15th North or 15th South or any particular part of the mine wherever the effect of the explosion was most disastrous?

A. No sir.

Q. Did you in your judgment consider this a gaseous mine?

A. No.

Q. In view of the fact that gas was sealed off in 5th and 6th East - -

A. Just one time I had found any.

Q. Why did you have pipes in 6th East to drain gas off even if it wasn't in large quantities?

A. That was for safety. Should that pressure come from the wall breaking again.

Q. What effect does the atmospheric pressure have on gas? Does it leave it out or push it back?

A. It generates it.

Q. Have you, in your own mind, formed any opinion as to how this disaster occurred?

A. No sir.

Q. You didn't make any observations as the rescue was going on?

A. I tried to.

Q. You were interested, I presume, in getting the men who lost their lives?

A. Yes sir.

Q. I presume you examined the mine without any fear of explosion during the night?

A. Yes sir.

Q. Did you carry a safety lamp with you?

A. Yes sir.

CROSS-EXAMINATION by JOHN STANLEY, Foreman.

Q. Mr. Smith what was the examination of the braddish material you used to wall off the fire?

A. We used braddish to drive the smoke back and to wall off the fire.

Q. What was the nature of it?

A. It was a heavy cloth about four feet of heavy cloth to drive the air current.

Q. You also stated in your testimony that you used stoppings. Was that also for the purpose of driving back the smoke?

A. To conceal the fire.

Q. In putting up stoppings, in your judgment, are those stoppings air tight?

A. As near as we could get them.

Q. After doing that work with your men did you report the mine on your report as in a safe condition?

A. I did.

CROSS-EXAMINATION by R. E. McLEAN.

Q. Howlong have you been examiner of that mine.

A. I have been examiner for the last twelve or fourteen years.

Q. Now in regards to that fire you spoke about. That room was about 200 feet deep. My understanding is that you went in and found the fire, walled it off forty feet in. Any crosscuts in that room?

A. There were.

Q. Were they sealed off?

A. Number 8 was sealed.

Q. How many rooms did you have to stop to stop the fire?

A. We stopped three rooms.

Q. It was 7 the fire was in?

A. We stopped 8 and 9 also.

Witness Excused.

JOHN HERRICK, being first duly sworn according to law, on his oath states:

Q. State your name?

A. John Herrick.

Q. Where is your residence?

A. Moweaqua.

Q. What is your business?

A. Coal miner.

Q. Working in the Moweaqua mine?

A. Yes sir.

Q. When was your last day?

A. The 23rd, Friday night.

Q. What particular job did you have in the mine?

A. Coal digger.

Q. On the night of the 23rd what was your job?

A. I worked on the fire, on the stopping.

Q. Wholelse was working with you?

A. Bill Schumacker.

Q. Anyone else?

A. That is all.

Q. Mr. Smith there with you?

A. Yes.

Q. Anybody else

A. No, just my buddy and Charley Smith.

Q. What did you do that night?

A. I worked.

Q. Where did you put the stopping?

A. Number 7 room.

Q. How deep is that room?

A. Two hundred feet deep.

Q. Where was the fire?

A. Room 7, 12 West.

Q. On the face or outside?

A. On the face.

Q. What kind of fire was it?

A. Giving out lot of smoke; blocked up when I got there.

Q. What kind of stopping did you put in?

A. Dirt.

Q. Loose dirt?

A. Yes, clay.

Q. How thick was it?

A. Five feet and one-half thick.

Q. How long was it?

A. About twelve feet.

Q. How high was it?

A. Five and one-half feet.

Q. How many stoppings did you put in?

A. One.

Q. Any cross-cuts in the room?

A. Yes. I put stopping in front of other stopping.

Q. You had it all shut off?

A. Yes.

Q. What time did you first put stopping in?

A. Friday in the daytime.

Q. What time did you finish?

A. I worked Friday night.

Q. And you worked all night Friday night?

A. Until six o'clock Saturday morning.

Q. Was there any rock coming out?

A. No, everything all right.

Q. Was it flaming inside or just smoking?

A. Just smoking.

Q. What color was the smoke, white, blue or yellow?

A. It seems tome like it was - - -

Q. Very hot?

A. Not very hot.

Q. How far from the entry did you put stoppings?

A. From the entry about eighteen to twenty feet.

Q. Have you at any time worked on a fire before in that mine?

A. No.

Q. First fire you worked on?

A. Yes.

Q. How many cross-cuts were there leading into this room?

A. I suppose sixty feet cross-cuts.

Q. How many were there?

A. I don't know.

Q. Do you know whether or not you closed up all the cross-cuts leading to that room?

A. Yes.

Q. How many stoppings did you put in?

A. Just one.

Q. This room was two hundred feet deep? And there was only one cross-cut in that room?

A. Yes.

WITNESS EXCUSED.

WILLIAM SCHUMACHER, being first duly sworn according to law, on his oath states:

Q. State your name?

A. William Schumacher.

Q. Where is your residence and what is your business?

A. Moweaqua. I am a coal miner.

Q. Where did you follow your trade or business?

A. In the Moweaqua mine.

Q. Prior to the 24th day of December what was your last job at the mine?

A. Working on that fire.

Q. Under whose direction?

A. Charles Smith.

Q. Mr. Herrick with you?

A. Yessir.

Q. Will you describe what you did that last job you did? What time did you enter the mine for that job?

A. Seven o'clock.

Q. In the evening of the 23rd?

A. Yes.

Q. Will you describe what you did?

A. Well, we first got a mule and rode in from the car to this place. Then Mr. Smith examined with the safety lamp seven, eight and nine rooms and there was smoke coming from the stopping that had been put in in the day time on Friday. Some smoke was seeping through. Well, after he examined it he said it was safe for us to come up with lights. Then he told me to take the mules and haul dust from off the road. I went along the road gathering dust and he put the stopping in. That is all we did. We stayed there and put the stopping in.

Q. What time did you leave the mine in the morning?

A. Well, it was somewhere around 6:30 by the time we got out of the mine.

Q. You had an open light?

A. An open light.

Q. How many men worked in the gang with you?

A. Mr. Herrick and I.

Q. Putting in stoppings?

A. Yes.

Q. How many stoppings did you put in to wall off this fire?

A. One in the day time in Number 7, 8 and 9 and we put in second stopping. We just put in one stopping.

Q. You claim that a stopping had been put in the day shift preceding your work?

A. Yes sir.

Q. How many stoppings were put in to wall off the fire?

A. I don't know.

Q. Do you know whether or not the cross-cuts leading between the rooms were walled off?

A. I don't know about the cross-cuts but I do know when we sealed up 7, 8 and 9 that would take care of all the cross-cuts. I know there is no other cross-cuts. At least there shouldn't be and I don't think there is from 9 to 10.

Q. No cross-cut from 9 to 10?

A. No.

Q. Why is there no cross-cut from 9 to 10?

A. Well, you don't make cross-cuts that way; supposed to make them the other side. The rooms are off in pairs and that necessarily runs cross-cuts the other way, 10 and 11.

Q. There is no cross-cut between 9 and 10?

A. No.

Q. How deep is the room approximately?

A. Two hundred feet.

WITNESS EXCUSED.

FRANK FLOSKI, being first duly sworn according to law, on his oath, states:

Q. State your name?

A. Frank Floski.

Q. And your residence?

A. Moweaqua.

Q. Your business?

A. Bottom man.

Q. In the Moweaqua mine?

A. Yes.

Q. As such bottom man what time of the day do you work?

A. I start eight o'clock in the morning until 4:30.

Q. On the morning of the 24th what time did you go to work?

A. I went about fifteen minutes till eight.

Q. Any men come down before you went down?

A. Yes sir. Fifty-four men before me.

Q. Were you the last one in the mine before the explosion?

A. Last one.

Q. After you entered the mine where did you go?

A. I went to the mule barn and got a mule.

Q. How far from the bottom of the mine?

A. One hundred ninety feet.

Q. Then what did you do?

A. Brought the mule down; harnessed it on the bottom and I looked for a shovel to clean off flat sheet.

Q. Whathappened then?

A. That was about at eight o'clock. The whistle blew and the first thing I knew I just heard a puff of wind coming, and the lights had gone out and I kinda figured there was a short circuit. After I told Ibra Adams and he said, no I believe that an explosion has come. We got away so if there was a force it wouldn't hit us. Light didn't

go out and I could hear it going up the shaft and I watched it there a little bit and I could see what little dust came went back into the inside. We tried to get in communication with the inside and we could get no communication with the inside so we called the office. I told them to send us a safety lamp. When we called for safety lamps somebody came.

Q. What time was that?

A. I judge about fifteen or eighteen minutes after eight.

Q. Then what did you do?

A. We left Ibra Adams at the bottom to look after the bell, which is his duty, and we proceeded to the inside, and we found a little dust and disturbance three hundred feet from the main shaft, and the further we got into the inside the more disturbance we found.

Q. When you speak of disturbance explain what you mean?

A. Little dust and rock.

Q. Continue.

A. So we got over to the over-cast and it was blowed out. So Smith and I repaired that. Then we proceeded to the 10th North.

Q. When the over-cast is working properly is there an air current traveling over it?

A. Under it. It is the same as a viaduct. There is an air current under and in it.

Q. Was there any air current at the time you examined it?

A. Air had a short circuit and instead of going on it went on the North side and out of the shaft. When we repaired that we proceeded to the 10th North. We found no door.

Q. What was the condition of the road?

A. Plenty of falls. We repaired the door and proceeded upto the parting where the man trip was found. There was an awful large fall which blocked our procedure at the present time. So when the rescue men came, and I hadn't had any dinner about twelve o'clock or twelve thirty I was done so I went out on top and got my dinner and took a little rest.

Q. Did the lights go out before you heard some concussion?

A. Yes.

Q. Did you hear any repor t?

A. No report.

Q. All you could hear was the wind?

A. Yes.

Q. How heavy would the concussion be? Was it sufficient to knock you down?

A. No it wasn't that strong. We were practically in the leadway then.

Q. But you could feel it quite plainly?

A. Yes, surely.

Q. Enough to satisfy you that something had gone wrong?

A. Yes, sure.

Q. Now when you got to the over-cast how did you find it?

A. Well, all the boards were gone.

Q. Had they been blown up or down?

A. Up.

Q. So the force had come up on the main road and blown up?

A. Yes.

Q. So there was evidently no force from the back entry?

A. None.

Q. You say telephone communication was entirely wrecked after the first one thousand feet. Could you communicate?

A. Couldn't communicate.

Q. Could you communicate with the top?

A. Yes.

Q. What kind of lights in the mine?

A. Direct current electric lights.

Q. And the electric lights extend how far?

A. Three hundred feet.

Q. That is what you call fairly well lighted, and after that the lights are only at hazardous points?

A. Yes.

Q. At what time did this happen, Frank?

A. Between eight and 8:07 is my judgment.

Q. How long had the motor trip been gone at this time?

A. That would have given him about nineteen minutes, which is just about correct; about twelve minutes to eight when he left.

CROSS EXAMINATION by R. E. McLEAN:

Q. Did you see any smoke on the bottom at all?

A. No smoke whatever.

Q. To my judgment you stated the force of the explosion came against the air?

A. It did.

Q. You made the statement that you said to your buddy, you thought it was an explosion. Did you know whether or not this mine accumulated gas?

A. Well, we never considered that mine gassy, and everybody went in and out with open lights and so that showed there never was.

Q. Did you know there was any gas that had been walled off?

A. That 6th East, we knew that.

Q. The gas was not in large proportions

A. No.

Witness Excused.

IBRA ADAMS, being first duly sworn according to law, on his oath states:

Q. What is your name?

A. Ibra Adams.

Q. Your residence is Moweaqua?

A. Moweaqua.

Q. Your business is what?

A. Coal miner.

Q. At Moweaqua?

A. Moweaqua.

Q. What particular job do you have?

A. Bottom cager.

Q. On the morning of the 24th where were you?

A. On the bottom.

Q. What time did you go into the mine?

A. At seven twenty.

Q. Did you go down before or after the coal miners?

A. I was the first man down.

Q. Anybody in the mine when you first went down?

A. No sir.

Q. After that what was the next thing?

A. I left the men off the cage and rang the cage away.

Q. What time did the men come?

A. Started twenty minutes after seven.

Q. When was the last of the fifty-four coal miners down?

A. About 7:45.

Q. Did those fifty-four men leave in one trip from the bottom of the mine?

A. No. Part of them went in with the drivers.

Q. Walking?

A. No, riding.

Q. At what intervals, how long a space of time did the men leave?

A. The drivers leave ten minutes ahead of the motor trip.

Q. Can you give any information than what the other bottom man gave?

A. I can not.

Q. The other bottom man was correct?

A. Yes.

Q. Is there anything you can add?

A. Nothing that would be of importance that I know of.

CROSS EXAMINATION by JOHN STANLEY, Foreman:

Q. You said fifty-four men entered that morning?

A. Yes sir.

Q. How many men ordinarily work at that mine

A. About seventy-seven or seventy-eight.

Q. Do you know for any reason why those men were not at the mine that morning?

A. Due to the fact that the straight West had some controversy about being ahead of turn. The straight West men were out, and some due to the Christmas holidays.

Q. Did any men have orders not to report?

A. Straight West men had orders not to report.

J. F. HICKMAN, being first duly sworn according to law, on his oath, states:

Q. Please state your name?

A. J. F. Hickman.

Q. Your business?

A. I am connected with the Moweaqua Coal mine at Moweaqua.

Q. In what capacity?

A. Secretary of the company.

Q. And it is possible I presume the morning of the 24th of December you were at the mine?

A. Yes sir.

Q. What time did you get there?

A. I was there probablya little before seven o'clock, about seven o'clock or a few minutes before.

Q. Anything unusual around the mine that morning as the men were going in?

A. I was at the office.

Q. What was the first thing you knew about an accident below?

A. The mine manager came running to the office and told me there was an explosion.

Q. You know anything about the explosion below? Have you been down below?

A. Not any farther than the mule barn.

Q. You know anything about this accident or explosion.

A. No. Nothing except what was reported.

CROSS EXAMINATION by MR. MCLEAN:

Q. Did you put men below?

A. No. We have two top men. One or the other always let the men down of a morning.

WILLIAM HARRIET, being first duly sworn on his oath, according to law, testifies as follows:

Q. State your name.

A. William Harriet.

Q. Your residence Mr. Harriet?

A. Moweaqua, Illinois.

Q. Your business?

A. Mine manager, of the Moweaqua Coal Corporation.

Q. How long have you been mine manager there?

A. I missed since last year, since August 1915.

Q. Have you had experience in a coal mine since 1915?

A. What is that?

Q. How long have you been around this coal mine?

A. Since April 10, 1902.

Q. On the morning of the 24th of December last past what did you do when first arriving at the mine?

A. I arrived at the mineabout, just about six o'clock. There was a man standing at the front door of the office and he said, Bill, somebody wants to get up and the cage is stuck in the tipple and I went in the office and fixed my lamp and cap and went up to the tipple. A piece of 2 by 4 was by the guide and the engineer couldn't hoist the cage. So I went around the coal dump and picked up a bar and tried to pry this 2 by 4 out, and while I was doing that a most terrific storm came up. I threw the bar away and ran for the stair and when I got to the top of the stairs it ceased a little, up to about half. I figured it was safe to go back. I went back there and got the bar and shook loose the 2 by 4. I went to the engineer's room and had the engineer lower the cage. When the cage was lowered I looked for a piece of 2 by 4, but couldn't find it, and of course, there was nothing to do but go to the office and wait for miners to come to work and I did that. I waited on any miners that came in the office

from that time on until time to go down into the mine. Mr. Hickman comes around seven o'clock, and I went over to the mine to go down. I started to get on the cage and I don't know how it happened one of the bins were full of coal up in the tipple, full of nut coal, and the top cager told me about that. They couldn't hoist until that bin was empty. So I went back to Mr. Hickman in the office and told him Monday they were going to celebrate Christmas and asked him if I could get that coal off Monday. He said "yes". I went out to the tipple and I don't remember how many men I worked. I worked one or two. I took the shovel myself and started to clean the track under the bin and while I was doing that somebody run to me from some place and told me that something terrible had happened inside, and I run to the engine room and got a safety lamp and had Mr. Hickman call the mine examiner and we went right into the mine and of course the first place we came to was the over-cast caved in. There was nothing further. It meant death to go beyond that over-cast. I left the mine examiner and Frank Floski and I started back out and called the mine rescue station. I believe they had Mr. Hickman do that. Called Pana for help; ordered nails and some lumber. I put that stuff on the cage and went in I think. I just can't remember all the details. So I made several trips back and forth. We sent men back. I think Mr. Shafer arrived with his men from Pana about 10:30. Sometime between eleven and twelve Mr. Millhouse and the State Inspectors arrived and I went in with those men, and as near as I can remember I got about 400 feet from the 14th South and I went back. I didn't have anything more to do, outside the day before that when this mine examiner called me about 1 o'clock, it was sometime in the morning, that he had a big fire. I just got ready and went down, took three men with me, and by the time I got in until the time I left, I left about 5:30 in the evening, we had the fire walled up with dust off the main road with 3 stoppings. And that stopping that was in No. 7 it was quite a way, about 40 or 50 feet, and there was a good chance for another good stopping pretty close to the entry. I don't remember just how far, but that night I had the mine examiner get two more men and put another stopping out there for safety, but that still left plenty of room for concrete wall. Our intention was to, the way we always did, was to stop rooms where fires were. Number 7 was about 200 feet; Number 8 also 200. I just can't say what it was. Number 7 was carried on in place of it. There was a lot of horse-back in that. It doesn't pay to go any farther on account of horse-back and that is why Number 8 was stopped and Number 7 carried on. To the best I can remember there are three cross-cuts between 7 and 8, and as near as I can remember there is one cross-cut between 8 and 9. Now last year I didn't work. There may be more cross-cuts between 8 and 9. So many horse-backs in that mine that those places are filled up. Number 9 is about 100 feet. There was no cross-cut between 9 and 10; that left 7, 8 and 9 to be walled up to close the fire out.

EXAMINATION BY MR. MILLHOUSE.

Q. You are a certified mine manager?

A. Yes sir.

Q. How many men were employed in this mine on the day of the explosion?

A. The day of the explosion?

A. Yes sir.

A. The top cager records show 52. I mean in all about 90 men.

Q. All the men were not in the mine?

A. No.

Q. Did you have a check system to check men in and out?

A. Yes sir.

Q. Were there any particular reason why a number of men didn't report for work that day, that you know of ?

A. Yes sir. One reason for so many not being there that day was that it was the day before Christmas. They celebrated, lots of them did, and we have to have enough men to supply the trucks and you have to just guess what it is going to take to supply the trucks every day.

Q. Did you divide the work with the men?

A. Yes, tried to keep turns square. On days we didn't need so much coal the men who were ahead of turn we would lay them off and let the others behind them make up.

Q. Then these men were laid off that day?

A. Yes sir. Didn't report for work, and there was eleven out of the Straight West that were laid off.

Q. Any checks taken off the board that morning by the mine examiner?

A. None that I know of.

Q. Were any bad conditions reported to you by the mine examiner?

A. He told me the place smelled from the smoke from the day before.

Q. Did he have any report on the inspection warning of any danger in the mine?

A. No.

Q. Did you consider this mine gaseous?

A. No, I didn't.

Q. Did you have entries sealed up that had gas in them?

A. Yes sir.

Q. What entry in particular would you call gaseous that was sealed up?

A. No. 1 and 2 East; 3 and 4 East in the North and 5 and 6 East in the North.

Q. Had you ever detected gas coming out in the seals?

A. Never did, not through the seals.

Q. Did you ever have methane gas coming through an entry? Did you have at times certain amounts of fire damp returning through return aircourse?

A. No.

Q. Now in the 6th East of the 15th North did that stopping break down on you sometime?

A. Not that I know of.

Q. Was there one stopping in there or two?

A. Dirt stopping inside and a concrete wall outside.

Q. Why did you have it that way?

A. You know it is natural for concrete sealing, when weight comes it breaks right now. With the dirt stopping if this did break down you would have some chance to help hold it back.

Q. You had a pipe connected?

A. That pipe was to drain the gas off that wall.

Q. How often did this drain the gas?

A. Constantly open.

Q. It is fair to presume if you had gas out of the pipe the entire entry would be full of gas?

A. It sure would.

Q. Is it possible that stoppings could be broken down at that time without any warning liberating that body of gas into the air?

A. Yes sir.

Q. Where did that gas go?

A. It would fill the passage way where the men traveled.

Q. It would go to the man inside?

A. Yes sir.

Q. Had you noticed any gas in the working face during the last several months?

A. Not since the mine started out. Found gas once at the 9th East at 15th South.

Q. On traveling way on 15th North did you ever examine high places along the roadway?

A. Yes.

Q. At the entry of 15th North are two rooms. Are they rooms or roadways?

A. Rooms.

Q. Here in the Main West coming to the bottom I find two rooms. Were these rooms connected with the 3rd back entry here?

A. No. Never were at any time.

Q. Were they sealed?

A. No.

Q. Were they open?

A. Yes sir.

Q. Did you ever notice gas accumulate here?

A. Never did.

Q. Were you ever inside these rooms?

A. Yes sir.

Q. I mean in times gone by?

A. Yes sir.

Q. And they were entirely by themselves?

A. Yes sir.

Q. How wide would these rooms be?

A. Never can tell just how wide. They are a good average, about 25 feet wide.

Q. Now back on the 3rd entry. Was this entry sealed? Near what I would call the 13th and 14th North, was it sealed up here?

A. Not that I know of.

Q. Was it sealed down here with dirt sealing with an over-cast?

A. Yes.

Q. And it was connected to the 13th and 14th North?

A. Yes.

Q. Third entry connected with open cross-cut where generating gas had gone out. Here is where the first men were killed? For this reason I find the greatest violence took place at this point. I want to bring that out. So they came out here and went into the main roadway. That was the two rooms up here that were not sealed. Was no gas noticed there?

A. No gas noticed there.

Q. Now then Mr. Harriett you were not in the mine at the time of the explosion?

A. No sir.

Q. Have you any information as to what the barometer or atmospheric conditions were at the time of the explosion?

A. I have nothing, except the Decatur Review barograph.

Q. Have you seen these barographs?

A. I seen them in the Decatur Review.

Q. It was noticed afterwards from this barograph a drop took place midnight on Thursday?

A. Yes sir.

Q. And continued until Saturday morning at 8 o'clock?

A. Yes sir.

Q. And from 8 o'clock until some 15 minutes or more a drop of apparently .3 of an inch took place?

A. Yes sir.

Q. Now this record of A. E. Staley taken on Saturday December 24, 1932. Now what effect did that have on gasses sealed up in the mine that has an possible chance of escaping if the stoppings were not permanently sealed?

A. It would allow pressure to create that would gradually come out through the low pressure from the inside stoppings. There would be high pressure in the old workings that would have a tendency to seep out to the low pressure on the main highway.

Q. You mean a low pressure would allow gas to come out on the inside?

A. Yes.

Q. That was frequent in mines?

A. Yes sir.

Q. Now let me ask you another question. This sudden drop of .3 of an inch happened within 15 minutes. This drop that happened within 15 minutes is an unusual drop, is it not?

A. Yes sir.

Q. Did that have a tendency to suddenly release gases behind those seals?

A. Yes sir, it would.

Q. Did you consider it safe for men under conditions that gas was in that mine; that some gas was sealed off?

A. Mr. Millhouse they have not used a barometer.

Q. Your own opinion, was it safe?

A. No.

Q. Would it be dangerous?

A. I would say it would.

Q. Now have you formed in your mind any cause that could have entered into the making of this disaster in that mine?

A. I have thought a whole lot, but I don't know. Everything I would say would be guesswork.

Q. You didn't take any part in the rescue work on account of illness?

A. No. I wasn't able.

Q. Then you did not form any opinion as to the cause of it on account of not being able to be down and see the program as the work progressed?

A. No.

Q. Is there anything more you can add to this in order to give a little light to the jury?

A. There has been one thing that I have thought a lot of, and that is right where that explosion centered. I can't think of anything that would be the cause of the explosion, except a sudden rush of gas from some place behind that North aircourse that we looked at on the map. I can't think of anything else.

Q. Was the roadway of this mine very dusty?

A. I didn't consider them dusty.

Q. What kind of dust, coal or rock?

A. From the 15th South entry to the bottom within 400 feet of the bottom, several years ago, we brought all the coal dust off that entry. Brought rock dust into it and I can't tell how many tons of rock dust, but we brought dust from the 15th South entry within 400 feet of the bottom.

Q. Did you ever sprinkle with water?

A. Yes sir.

Q. How often?

A. It has been something like a month since -

Q. Roadway being very dry condition at the time of the explosion?

A. Yes sir.

Q. Was there much accumulation of dirt on the roadway?

A. No, we kept a man to clean all coal dust clean from the road and he did the work every night.

Q. Would it be fair to assume there is an abundant quantity of fine coal dust at all times?

A. Yes sir.

CROSS-EXAMINATION by JOHN STANLEY, Foreman

Q. Could you inform the jury at what time or what date the last inspection of this mine was made by any state inspector?

A. I can't tell exactly, but it has not been long. Probably two weeks before the explosion.

Q. Have you a report of that inspection?

A. Yes, it is up in the box at the mine.

Q. Is it possible for the jury to get that report?

A. Yes sir.

Q. Can you tell the jury what the contents of that report were?

A. Yes, I think that report called for the sealing of 9 and 10 East off the 15th and 16th South. I am not certain. I have just forgotten everything.

Q. The management of that company complied with those request of the state inspector?

A. Yes sir.

Q. In regard to the cleaning of those roads?

A. Yes sir. And the last report of dusty roads - threr was a man put on and he sprinkled the roads. I think he was sent down Sunday. I think the last report was complied with about dust.

Q. What Sunday?

A. I don't remember the date.

Q. You made the statement that the roads hadn't been sprinkled for a month and still you claim the mine wasn't very dusty?

A. It was sprinkled on that Sunday after the mine inspector had made his report and that mine inspector will tell you that a man was ordered to sprinkle that road, but he didn't do it for some reason or other. But he came then the next day or so and done the job at sprinkling.

Q. That was a month prior to the disaster?

A. I don't know how long.

Q. Another thing, Mr. Coroner, the jury would like to have a copy of the last report of the inspection of that mine.

Mr. Nolan: We have it here.

Witness Excused.

RAY KINGSTON, being first duly sworn, according to law, on his oath states:

Q. What is your name?

A. Ray Kingston.

Q. Where do you live?

A. Shelbyville, Illinois.

Q. What is your occupation?

A. County Mine Inspector of Shelby County.

Q. Did you ever inspect the Moweaqua mine?

A. Yes sir.

Q. When did you last inspect it?

A. November 28 and 29, 1932.

Q. Have you got a copy of that inspection with you?

A. I have one. I think exactly.

Q. Can you read out what the report was?

A. Yessir.

Q. Read it so the jury can hear.

A. November 28 I went to the mine. I went to the office. Examined the examiners report. I finding everything marked safe I went below after examining the equipment on top. I took my readings at the down cast and up cast aththe usual places. I advanced to the South 15th - Good; North 15th-Good, North and South. Straight West was not working. I advanced to the South 15th along the South 15th roadway. I came to the 9th and 10th East. I used my flashlight until I came to the parting knowing they was working on concrete stoppings that we had asked them to put in on 9 and 10 East off the 15th South. These concrete stoppings they were working on. I advanced to the workings, 11th and 12th West, 13th and 14th East. The roadways were dusty. The ventilation good, except a little warm in the 11th West. The ventilation fair, but warm. Taking note of my findings in the South territory I went on. I had a few words with the mine manager. I talked with him a short time.

The next day I came to the mine about nine o'clock. As I advanced I found the roadway sprinkled. They had been cleaned before they had been sprinkled, and in good condition. I proceeded to the North territory. In the North I found: Ventilation - Good, with the exception of roadway a little dusty, some coal dust and soap stone. I retreated from the North. Went into the Straight West. I made my examinations in the Straight West finding on the cutting machine in the Straight West a bad cable. I took note of this. Advanced to the other working places. Found in the First West off the 15th South wires a little close to the track. I took note of this. There had been placed in the Straight West material to build doors and hang new curtains which were leaking. Took note of this and made my findings. I will read my findings if you care for it. I went on top and posted this notice at the mine table. That was my last examination of that mine until I learned of the explosion Saturday.

Q. What date was that?

A. November 28 and 29. The straight west and North were not working on the 28th and I examined that territory. Went back the 29th when the Straight West and West 15th were working.

Q. Find any gas in this mine?

A. No sir. The only time we knew there ever was any gas was just after cleaning this fall, after it had been abandoned all summer. Mr. Harriett told Mr. Frazer and myself there had been a fire of gas in the 8th, 9th and 10th East off the 15th South, therefore we recommended the concrete stopping. I used a bulb in passing that place in last two examinations.

Q. You knew gas was sealed off in different parts of the mine?

A. Yes sir.

Q. Were there pipes with valve on those stoppings?

A. Yes sir.

Q. All of them?

A. All that was erected. The material was ready at the South when I left the 28th. It was all ready erected at the North 5th ever since I made the mine.

Q. Was there a pipe on all seals?

A. Yes sir.

Q. In order to release gas which may accumulate?

A. Yes sir.

Q. How long have you been County Mine Inspector?

A. Better than four years.

Q. Are you a certified mine inspector?

A. Yes sir.

Q. About how often did you inspect that mine?

A. Once each month while the mine is working.

Q. You took part in the recovery of the bodies that were lost in that mine?

A. Yes sir.

Q. Where would you say the most violent part of the explosion was?

A. Main West. Heavy at the North and South. Heavy all over.

Q. Did it go to the face?

A. Yes sir, face of the coal.

Q. Did you find evidence that the explosion had gone to the face?

A. No sir.

Q. Did you find evidence that it had come out from the face?

A. No sir.

Q. Are you of the opinion that the explosion took place out of the inside workings of the mine?

A. Past the parting on both North and South, to the parting of the North and pas t the parting on the South.

Q. What about Main West?

A. Never explored any farther than the 15th.

Q. How did you find the return airways in this mine?

A. Return airways in fair condition.

Q. There was evidence of violent explosion wherever you went?

A. Yes sir.

Q. Enough falls?

A. Yes sir.

Q. Timbers shot out?

A. Yes sir.

Q. Any other evidence you can give in this inquest other than I have asked you?

A. No sir.

EXAMINATION BY JOHN STANLEY, Foreman

Q. Where Mr. Millhouse did this leakage come from?

A. From back entry. You mean that return air. There were two small falls, minor falls in the return airway. One near the mouth just beyond the escape door. The other one back further west.

Q. You have no knowledge of whether or not your inspection and your report had been complied with up to the time of the disaster?

A. (Mr. Kingston) They had sprinkled the roadway, and were finishing the concrete stoppings the last day I was there.

Q. That wasn't the point I was trying to get. You have no knowledge whether your inspection or your report to the management had been complied with up to the time of the disaster?

A. I wasn't there after the 29th. I think they had sprinkled the roadways and that they were finishing up the concrete stoppings.

Q. That is when you made your inspection?

A. The 29th was the last day. The material was there at face party. They were working.

Q. The disaster occurred a month after the inspection took place?

A. No sir. I was there last the 29th of December and the 24th of December is when disaster occurred.

Q. Practically a month?

A. Yes sir.

Witness excused.

Mr. Millhouse:

We wish to offer in evidence the following Exhibits:

Exhibit One - Map of the Moweaqua Mine.

Exhibit Two - Barograph, A.E.Staley Manufacturing Company.

Exhibit Three-Barograph, Decatur Herald & Review.

Exhibit Four -Notice of Inspection.

Exhibit Five -Report of Investigation Committee.

JOHN K. FRAZER, being first duly sworn, on his oath, according to law, states:

Q. Please state your name?

A. John K. Frazer.

Q. Where do you live?

A. Carlinville.

Q. Your position?

A. State Mine Inspector for the Sixth District.

Q. Is the Moweaqua Mine in your district?

A. Yes sir.

Q. How long have you been in the mining business?

A. About forty-one years.

Q. What sort of work did you first do in the mine?

A. I used to be a pusher of cars in the old country.

Q. In What country?

A. Scotland.

Q. How many years experience in the State of Illinois?

A. Twenty-two years.

Q. And what has that experience been composed of?

A. Coal digger, braddish man, company man in general, face boss, mine manager and assistant superintendent.

Q. How long have you been connected with the State Department of Mines and Minerals?

A. Three years last December.

Q. You may state in detail what experience you had at the Moweaqua Mine after you arrived there on the 24th and tell your story so the reporter can get it, please.

A. I arrived at the Moweaqua mine the 24th of December approximately twelve o'clock noon. I immediately got ready to enter the mine with a view of taking part in remedying in whatever had happened. About the time we had completely arranged to go down Mr. Millhouse arrived from Springfield and Mr. Marshall, State Inspector, in company with Mr. Millhouse. We decided then to go down together, which we did. We proceeded along the Main West road. I got a little ahead of the route. We looked the top over. The fan was moving its regular way and seen the shaft was proper. Given this inspection we thought it best nothing would be tampered with. We then went to the mine. We proceeded along the Main West approximately 3000 feet. We stopped at the 14th South where there had been an opening and a curtain over it. We seen that was curtained we proceeded West again. About 300 feet from that point we come upon men working, engaged in making passageways through the falls and had got to the man trip. We seen that we weren't required at that point, that the men were doing all they could, and we decided to come back thinking possibly that we could get an entrance up the back entry, believing that there was a possibility that we could get to the inner side of the man trip and might possibly find men waiting on somebody coming to get them. We traveled the back entry finding the atmosphere in fairly good condition until we got to the 15th South over-cast. We proceeded from there North and we got to the Main West on the other end of the man trip, but found falling conditions there and was about equal to the outside. We retired back from there to the over-cast and we examined South from the over-cast, but we found from conditions we could not work South. We then traveled West from the over-cast, and we got to the back entry, which is the 16th South, and we found then we were stopped because of atmospheric conditions. We retired back to the overcast and about the time we got to the overcast something had happened. A fall we think inside. We then decided we had better leave and go back to the road we had come, satisfied then that there wasn't any chance of any man being there at that point. We also had the satisfaction of knowing just what we could do and about how to do it, That is all for that day.

The department then having organized into shifts it was Monday evening, Monday night when I got back. The boys had then been taken out of the South, or most of them. Mr. Millhouse instructed me then to take two rescue teams and thoroughly explore the South territory to the face with a view to find out, to assure ourselves, that nobody else was left. That was done. We then came back. Proceeded West 15th South. On the second trip of the rescue team we found one man at the 15th North switch. We brought him out and we then turned the ventilation North. We came back then leaving it ventilated until the next shift would come on.

The next night we was in the North, proceeded 350 feet and used the air lock system. The North was explored until seven more bodies were discovered in a car. They was taken out. On up until Wednesday during the day several shifts with Mr. Millhouse in the head, the remaining seven men were found and on Thursday night they were brought out. That was about the end of the activities until Wednesday of next week, January 4. A commission was appointed by Mr. Millhouse to investigate and determine as nearly as possible from the evidence available what was the cause of the explosion, which was done and the report is now on file.

Q. From your investigation of this mine and your experience in the mine there can you fix the cause of the death of these men?

A. From the evidence and after effects that was in evidence we are certain that this was caused by gas explosion, a movement of some description which caused falls to break the seal at the 5th East of the 15th North releasing gas being held, being what has been known to be a sudden drop in atmospheric pressure sometime around eight o'clock in the morning, and the men going in there had at some part inside the 5th East ignited those gases causing the explosion.

Q. Are you able to state what kind of gas it was?

A. Methane gas.

Q. Can you explain the formation of methane gas in coal mines for the purpose of the record?

A. It could be called pure gas sometime.

Q. How is it formed?

A. It collects, and has collected behind seals and that is the reason we put up seals to hold it back.

Q. Can you state about the weight of methane gas? Is it lighter or heavier than air?

A. Lighter.

Q. For that reason it collects at the top?

A. Yes.

EXAMINATION BY MR. MILLHOUSE.

Q. Mr. Frazer is it not a fact that almost at the same time at the same day that an explosion of a similar nature took place at the North Mine in Virden?

A. Yes sir. It was brought to my attention Wednesday morning at the Moweaqua mine by somebody who was there. That some place in Macoupin County gas had been ignited by men traveling in a man trip on the same morning between seven and eight A. M., and naturally I got a little uneasy about that. I called the County Inspector of Macoupin County on my way home that evening and

unfortunately he was not home, but I asked his wife if at any time in my absence had he been called any place. She said "yes", and told me it was the Virden North mine, and on Friday I went to the Virden North mine to investigate and I find that almost identical conditions on that same morning, with the exception that the mule trip had gone ahead and gone in and nothing had happened, by the motor trip coming in with seventy men on deck. The motor and the fourth car got clear of the high place which had beentimbered where a fall had recently occurred. The men in the fifth car ignited the gas and sixteen men from the 5th car back to the end of the trip had more or less slight burns, but that had not caused any explosion, but it is rather a coincidence and bears out our justification in blaming that atmospheric pressure for causing both occurrences. That is about the history of the Virden mine.

Q. Let me ask you another question. How far back from the face did that explosion take place in the Virden mine?

A. One mile and a half.

Q. Around the workings. The gas coming from the old workings?

A. Yes sir.

Q. That had been abandoned some years?

A. Thirty years according to the oldest miner in the mine.

Q. Did you find any of the seals of those abandoned works leaking?

A. Well, we only got to the 8th South so far, and we found sufficient evidence there to warn us of absolute methane.

Q. In this place where the men were burned, gas came from where?

A. It had run out of the 8th South and had naturally drifted one hundred feet and drifted up to high place and lay there.

Q. Was that in on the intake airway?

A. Yes.

Q. Approximately how many feet of air traveling?

A. 13,880 feet, double track.

Witness Excused.

JOHN MILLHOUSE, being first duly sworn according to law, on his oath states:

Q. Please state your name?

A. John Millhouse.

Q. Your residence?

A. Springfield, Illinois.

Q. And your business?

A. Director of the Department of Mines and Minerals of the State of Illinois.

Q. How long have you been Director of that Bureau?

A. Three years, 15th day of last December.

Q. How long have you had experience in and around coal mines?

A. Forty-eight years.

Q. Since you were a boy I presume?

A. Since I was a boy.

Q. What experience have you had in coal mines from your earliest experience?

A. I started at an early age, at the age of thirteen, picking slate out of the coal on the top; then became trapper boy; then from that to driver, driving mules; had some experience mining coal with my father; from that I became mine examiner. I believe I have done everything in a coal mine, and became mine manager, superintendent and State Mine Inspector for about twelve or thirteen years and I occupy the present position I have now.

Q. Approximately how many mines have you worked in, or had something to do with in your official capacity?

A. I have approximately been in at least two hundred mines or more.

Q. In other states besides Illinois?

A. In other states besides Illinois. I have worked in iron mines as well as coal mines.

Q. On December 24, 1932 was the Moweaqua mine disaster called to your attention?

A. On December 24, 1932 at 8:30 in the morning I entered my office. Mr. Joyce, the assistant director, was in there at that time and informed me that a disaster had taken place in the Moweaqua mine. We thought at that time, that probably the explosion was small in character involving probably one or two men, and I called up the Moweaqua Coal office and they told me they didn't know how serious the explosion was at that time. I couldn't get much information; that a few men had gone down. However, we decided to order the Springfield rescue team to go down there, and got in touch with Mr. Frazer advising him of it; that our Springfield State Mine Inspector and Mr. Tom English and our representative at large to proceed immediately to Moweaqua. Mr. Marshall came to the office all ready to go and at ten A. M. we left for Moweaqua arriving there, I believe, at 11:15. At that time I didn't have very much information outside the explosion was severe and that they

hadn't got very far in on account of the falls on the roadway. Mr. Joyce, myself and Mr. Marshall put overalls on, and by that time Mr. Frazer got there. We all went down into the mine with safety flashlights. The first indication I found of an explosion was the overcast had been blown away, and temporarily repaired in order to get air inside the mine. Probably one hundred yards we ran into the way where timber had been destroyed and therein the violence of the explosion seemed to have grown until I finally got to the 13th and 14th South We went further West a short distance from there and we found men underneath the timbers trying to make a roadway inside. The obstruction was very hard to get through. While I didn't go in to see it myself, I was convinced that it would be some time before we could get anywhere going that direction. Our first thought was trying to get some men alive. Mr. William Decker was one of the first men I found in there and he advised me that he had done all he could by way of sounding, or any other way to see if he couldn't get a reply from the inside, but everything was quiet. Naturally myself and my associates were very much concerned. We went back to the 13th and 14th South. The door had been blown out. Ventilation wasn't any too good on account of being blocked up on the roadway. So we had a little conference there. I said, now there is only one thing I know of that we can do at the present time until we get an opening. If it is possible I would like to be able to get back behind this fall and maybe work a way back of these men and get a roadway through. I said, there is a chance in this, rather a desperate chance. We are taking a risk. So that we may not be ill advised, if you are willing to go with me we will go. They said, we will go. I said, there is only two things we have to safeguard ourselves at this time. That was a safety lamp to tell us of fire damp and our physical senses to tell us if it was white damp, and we all knew what the atmospheric pressures were. We would be careful. We will not take any chances unnecessary, although the chances are there that we will be caught if we don't watch very carefully. Frazer took a safety lamp, went into the back entry and reported free of fire, with no indication of explosion having taken place in return air. I said, the Good Lord is with us this time. Let us travel carefully. We will have two men followers within a hailing distance and two men following them so that in event we are overcome they will get up to us. We had nothing but a human life to depend on. We got outside the 15th South without any inconv nience whatever. We checked up and we were satisfied it was all right there. We found the over-cast at the 15th South completely destroyed. We moved then North toward the main road and when we got there we found a very big fall. The air was short-circuited. We had plenty of fresh air. I got back to the old broken up over-cast and tried to cross over to the 16th South. As soon as I went in I struck white damp. I said, get out quick whatever happens, white damp. I don't know, it seems to me that gas was everywhere. We immediately started to get out. I called for the men. Mr. Frazer and I spent some time trying to get those men when it convinced me that it had come and very quickly some way. I got half way out. I saw men ahead of me, and I called for help. I became paralyzed. I don't know who came to me. After while I know Mr. Joyce and Harry Marshall came within fifty feet and through their efforts dragged me into fresh air. I was entirely unconscious. I didn't know anything. I came to my senses quickly and I believe William Decker took care of me until I was able to sit up. Frazer still in, was finally dragged out; laid beside me, and in a half dazed condition I directed some of the men to give artificial respiration, and he came back. After a while I directed them what to do. The only thing was not to go into that entry any more. I went on to the surface then and I think I took two hours

rest until I went back again and directed the workings and at four o'clock on Sunday morning I went back again. Where the men were working it seemed to me there was a hollow sound. Well, I went out and at six o'clock John Simpson and his men from Pana relieved the men down there making the road. Thinking the matter over I got the County Inspector from Perry county, Mr. Stein, to go down and tell Mr. Simpson to stop driving ahead any further. Then he found four bodies where they were, and those twelve bodies were taken out of there under most trying conditions that could be taken out. I finished out that part getting those twelve bodies out. I went down again Sunday afternoon to continue on driving through the 15th South. That was the key to the situation, and I told Mr. Frazer that as soon as possible I would get in there and build an over-cast crossing over to the 15th South, which was done. I went on home then to get some clothing. When I returned back next morning they had made splendid progress. They had constructed the over-cast, and entrance into the 15th South was made. We went in and some exploration had been made before I got there, and we finally got to the end of the long fall, 800 feet long. From there on the roadway was fairly clear. The air wasn't very good, but we cautiously went ahead without anything, except our safety lamp and physical senses to guide us. We got to the motor trip where we found sixteen men. Six men were out of the trip, the rest in the cars. I found the cars altogether and the brake had not been set nor the power shut off. I said to stop further exploration, we will take these bodies now and made arrangements to take them out. One of the Springfield Rescue men went a little further and found eleven bodies. Twenty-seven in all in that section. There was lots of willing help and many men, 120 men in the mine at that time carrying the men out, under most trying conditions that men could be subject. After the bodies were out I directed Mr. Frazer and one or two of his fellow inspectors to take care of the operations from then on and to explore all of the South entry to be sure that no men were left in there. When that was done to seal up the 15th and 16th South, drive the air in the Main West and the 15th North, which they did, and found a body lying on the Main West at the 15th North entrance. Brought that body out I believe sometime around about Midnight. I was there at that time. Nothing further done until next morning. I thought to leave things stand until the air got circulated. Next morning I went down; went into the 15th North where these two old rooms were. We found three feet of fire damp gas just out on the entry and the roof down. We went further in, opened the crosscut, put up barricade on main entrance and drove air in. Got the rescue team to find another opening if they could and fortunate to find a back entry. We cautiously followed the fresh air in very slowly until we came to the next place. I think we withdrew then, and Mr. Fraze and the Gillespie mine rescue team in there found seven bodies. That was all that was done. I think that was early in the morning. Three o'clock in the morning I went down with another rescue team and some fresh men. Ventilation was so slow that we could hardly advance, and it was dangerous to go any further. Realizing that, I decided to abandon any further exploration until the ventilation improved. All through that night we had men level off the fall and put in more substantial stoppings to get ventilation, which was done and before morning Mr. Frazer had the seven bodies on the bottom. In very slow movements we finally got to the angle where it went to the parting. Our lights hardly burned. We come to the 6th East making very close observation as possible. Falls were not so numerous. Indications pointed towards the force of the explosion. From examination of some of the prop timbers we

found beams blown out, swung that way with the force of the explosion from directly over the rail after the cars had gone in. I found the stopping on the 6th East badly blown out. Black niger head, heavy limestone and large chunks of rock evidently rolled down and bursted this stopping. I went to the parting and found the mule laying between the tracks. One of the first empty cars we found with wheels facing us. The sprags in the loaded car being in reverse, showing that it had been pushed back. We went a little further. I found one body laying between the tracks. Further on I found another body immediately behind the loaded cars. We had to go very slowly waiting for air to circulate in. A little farther I found inside of the car, outside the track there lying in front of that car, four bodies. Further on up to the door that leads to the back entry I found another body and the mule. We were satisfied the mine rescue men had located these. Our next day was to get the bodies out. The last body on the inside, door being out at that point, was virtually dragged out. I want to give a lot of credit to John Simpson for the splendid work he did at that time. It was eleven o'clock when we found these bodies. Two o'clock before we got in. I don't think we advanced 200 yards at that time. That shows how bad the air was. The bodies were wrapped up and brought out. We left them and Mr. Frazer with fifty men brought the six bodies to the bottom. That is all so far as the rescue work is concerned.

Dwelling on the origin of the explosion it is hard to speak with exact precision, but I believe that I have found a very reasonable cause of that explosion. This is verified by the Bureau of Mines who concur with our findings and I believe the representative of the coal company as well. We believe that this seal broke down in the 6th East after the men came out from working on the fire, and when this man trip passed by the 6th East with the air going in with them it is quite possible that the gas issued out of the 6th East to the air current and possibly some 100 or 150 feet to the parting where the men got out. I am inclined to believe that when they stood up the gas, being lighter than air would naturally be in the high art of the partings, was ignited by their open lights, and being of a small amount traveled back to the main body of gas to the 6th East. I believe that on account of the violence I found at the parting anyone familiar with mine cars knows that it would take a terrific power to lift a car and stand it onits end and fasten it by the end. I have no doubt but that the concussion had its effect on any gas that was laying outside, in or around went to where the twelve men were found. I have shown you on the map where there was an opening from the main entry into the back entry and it is possible that the North back entry opened into a road or apparently entries way back in behind. Some queer things happen in coal mines. One of the greatest things we have to content with is the unexpected. Let me refresh your mind what Mr. Frazer told of the Virden mine entry sealed off thirty years still actively giving off gas in dangerous quantities. It is a well established fact that at that time low barometric conditions existed throughout this part of the state. Checking up very closely the Virden and Moweaqua disasters it was practically the same time and the same kind of explosion, and I am still strongly inclined to believe that gas diluted in large quantities out of the North back entry. In other words, there were two explosions, one minor and one major. Where the twelve bodies were found we found

it most violent and it radiated from there in all directions, with the exception of the Main West Entry. We find no evidence of explosion on inside workings. I have not been through the North workings. As you first come to the parting you find that there is evidence there of severe explosion. While to give you my personal opinion on this matter I can't say that I could blame it on anybody. One of those things that happen and we never know until it happens. This mine had been legally examined as required by law, by a certified mine examiner, by a man, from my contact, who was conscientious in his duty. This man being an hour later it is possible that he may have lost his own life. There are many things in mines that we can not foresee no matter how careful we may be. We are all in dark in there. There is danger in other lines of activity. We can't see each other and we have many things to contend with that sometime come on us very unexpectedly. When eighty, ninety or a hundred men lose their lives in this state just one at a time it is not noticed, but when five or more are lost we all sit up and take notice. These men don't throw their lives away carelessly. I don't know what more I can tell you men. I have told you my story what I know, but I believe it would be fitting and proper at this time to say a word concerning the men who so willingly and gladly offered their services at that terrible time. They responded nobly and kept up the tradition that coal mining men when any number are in distress, regardless of what the danger or labor may be, they are always glad to respond. I feel proud of the day, of the men, of the laws that I belong after going through what I did in the terrible mine disaster. That is all I have to say. Any questions you care to ask me that I have not made clear I will be very glad to try to answer them for you.

EXAMINATION BY JOHN STANLEY, Foreman.

Q. I believe Mr. Millhouse you have answered the questions that I tried to get from the other men. It appears from your information that one man in that group of seven was in the lead of the rest of the men. You know what distance or approximately he was from the rest of the men that you found before?

A. I would say about thirty feet inside of the rest four men. There was a mule there with them. The first men were possibly 150 feet, not more inside of the 6th East. It is a very hard thing in my mind, to determine the actual thing that did take place where the gas was set off. We are positive that there were two explosions, one minor and one major, and I rather think the minor explosion, the jar of the concussion made the other one possible.

Q. In all two or three?

A. I wouldn't say more than two. Let me add another thing. I found all of the return airways in splendid condition, and the evidence that I think Mr. Smith gave this morning was the floor of the over-cast was blown upward. The force hadn't come from the back entry and naturally when you figure out the 15th South is just about the center of the whole thing and that is where it was heaviest naturally you think that is where it started.

Q. The eleven men - - -

A. The eleven men on the inside first group, it seemed that they had come from the parting out. They had heard the explosion and in their panicky condition

had started out. A man's first thought is to get out. I believe when those men went in if they had gone into some inside room they would be living today. Those men were not burned and I found several matches that had been tried to light and I believe one man told me one man's hair showed he poured water on it, and the 16 men were partly singed, and the twelve men in the 15th South entrance were badly burned I am told. They were the only bodies I didn't see.

Q. In your opinion, Mr. Millhouse, what was the cause of the death of the men in the North?

A. I think they were killed by flame and by obnoxious gas.

Q. And by a jar concussion?

A. No.

Q. What was the cause of the death of the twelve on the man trip?

A. Explosion, flame and the after damp as a result of the explosion.

Q. And the men at the South?

A. The same thing.

Q. What is fire damp?

A. Fire damp is a mixture of gas and air. Let me explain that fire damp is the miners' term and is not explosive, but when mixed with oxygen 4 to 13% is explosive.

Q. Is that term fire damp same as after damp?

A. After damp is burned out element.

Q. In other words oxygen is gone from the atmosphere?

A. Completely depleted.

Mr. Millhouse: May I add that the following rescue teams participated in the rescue of these bodies: Springfield, LaSalle, DuQuoin, Gillespie Superior Coal Company and Benton.

WITNESS EXCUSED.

CHARLES SMITH being recalled testifies as follows:

Q. Mr. Smith, on the morning of the disaster there had you examined the 6th East entry off the North?

A. Yes sir.

Q. Had you ever, prior to this date, found any evidence of gas?

A. Yes sir, a year ago.

Q. On this morning of the explosion did you examine close to the roof to determine whether or not there was any evidence of gas?

A. Yes sir.

Q. Your lamp didn't show of any evidence?

A. No, none whatever.

WITNESS EXCUSED.

NOTICE OF INSPECTION

Nov. 28, 1932

I have this day inspected Mine No. 1 of the Moweaqua Coal Corp. Coal Company located at Moweaqua, County of Shelby, and find its CONDITION AS FOLLOWS:

1. Ventilation:

Good. Except warm in 11 W. off 15th S.

2. Condition of Haulage Roads and Refuse Places:

Dusty in S. 15th territory.

3. Other Conditions as follows:

Bad cable on M. W. cutting machine.

Doors required on M. W. between 17 & 18 M. & 17 S.M.W.

Wires too close near 1st W. 17 S. M. W.

No stretchers.

4. Recommendations made:

Clean and sprinkle all dusty road ways as soon as possible.

Tape bad places on M. W. cutting machine cable and replace with new one as soon as possible.

Build doors in above mentioned places in main west.

Wires near 1st M. 17th S. M. W. shall be properly spaced at once.

That cross cuts and curtains be examined in 11 W. 15th S. that proper ventilation may be conducted to these places.

Continue good work being done on concrete stoppings in 9 & 10 E. off 15th S. Stretchers shall be available for use at once.

Ray Kingston,
Col MineInsp.

State Mine Inspector

_____(District)

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STATE OF ILLINOIS

Peter Joyce

DEPARTMENT OF MINES AND MINERALS

John G. Millhouse
Director

Assistant Director

Springfield

January 4, 1933.

Hon. John G. Millhouse, Director,
Department of Mines and Minerals,
State House,
Springfield, Illinois.

Sir:

We, your investigation commission, appointed to inquire into the cause of the disaster at the Moweaqua Coal Corporation's Mine Number One, Moweaqua, Illinois, at eight A. M. on December twenty-fourth, 1932, beg to submit for your approval the result of our investigation, as follows:-

Our investigation convinces us that the explosion originated from the 5th East off the 15th North by methane gas being released as a result of a fall of roof and concretionary nodules falling against the seals, breaking them outward, the methane gas being carried into the air current inward to the men, who had just passed by in a car hauled by a mule. The men, arriving at the parting, in getting out of the car, evidently ignited the gas with their open lights, the flame traveling backward on the 15th North coming in contact with a large body of gas located at that point. The explosion, at this point, seems to have divided, going North and South.

We found the first empty car going in on the parting standing on its end, showing that the force of the explosion had traveled that way. The sprags in the loaded car wheel being in reverse position indicated that the loaded cars had been pushed back towards the North. From the 5th East, traveling out South, indications showed that the force of the explosion had traveled outward also.

The 3rd and 4th East stoppings had been destroyed. On our first entrance in there, methane gas was found. At the 1st and 2nd East off the 15th North the stoppings had been destroyed and at the inside of the 15th North three feet of explosive gas wasfound outside of two old rooms.

There was evidence that gas had been given off in large quantities in all of these openings, which the first exploration proved. The greatest violence had taken place at the man trip where twelve bodies were found outside of the 15th South in the cars and had radiated in all directions from that point, with the exception of the Main West inside of the 15th North and was less violent on the inside workings than it was throughout the mine.

We are convinced that due to a low barometric pressure taking place immediately after eight A.M. of .3 of an inch occurred at that time would naturally cause gas to exude in greater volume from the old workings at this point.

The explosion in the 5th East no doubt forced gases from some of the old workings on the men located in the man trip at the 15th South and being ignited by their open lights the explosion radiated with severe violence from that point in all directions.

There is also the probability that coal dust intensified the explosion, but we have found little evidence of coal dust being an active agent.

The violence of the explosion was such as to cause the roof to fall in the 15th South a distance of eight hundred feet, and outward to near the 11th North towards the shaft bottom and into the 15th North for a distance of fifteen hundred feet, and from there in, the effect of the explosion decreased.

We are convinced that this disaster was caused by an explosion of methane gas, resulting in fifty-four men losing their lives.

(Signed) Thomas English
Inspector-at-Large

(Signed) John K. Frazer
State Mine Inspector 6th District

(Signed) James Weir
State Mine Inspector 10th District

(Signed) W. L. Morgan
Economic Investigator

Exhibit "5"

State of Illinois :
: ss
Christian County :

In the Matter of the Inquisition on the body of Andy Turpac, et al, deceased, held at Taylorville, on the 10th day of January, 1933.

We, the undersigned Jurors, sworn to inquire of the death of Andy Turpac, et al, on oath do find they came to their death by a gas explosion in the Moweaqua Coal Corporation in Mine No. 1, Dec. 24th, 1932.

We further find from the evidence that gas had accumulated in the old works and had been walled off by concrete stoppings and a leak had probably occurred either by falls or a change in the atmospheric condition and gas had been ignited by a flame.

John Stanley, Foreman

Claude Adams

Jacob Bilyeu

R. E. McLain

Jeff Franch

Glenn Gorden

Form 6—137

U. S. BUREAU OF MINES

E—DESCRIPTION OF MINE

(1) State Illinois (2) County Shelby (3) Town Mowequa (Post office.)

(4) Mine sample of road, roofrib dust (Material—for coal give classification.) (5) Coal field Illinois (6) District Cent. Ill.

(7) Mine Mowequa (a. Name.) shaft (b. Kind of opening—if shaft give depth.) 650 ft. (c. Height of opening above sea level.)

within town limits (d. Distance and direction from town.) Illinois Central (f. Railroad connections.)

Mowequa (g. Shipping point.) (e. Sec., T., and R., if necessary.) All coal sold to wagons & trucks (h. State if wagon mine or prospect and give distance from shipping point.)

(8) Coal bed Illinois #5 (a. Name.) (b. Geologic system.) level (e. Strike, direction.)

(c. Formation.) (d. Dip, degrees.)

(9) Mining system room & pillar panel (Long wall, room and pillar, panels, etc.) (10) Undercutting machine (Hand or machine.)

(11) Explosives Blk. blasting powder (a. Used for coal.) (b. Used for roof or floor.)

(12) Operator Mowequa Coal Corp., Mowequa, Ill. (Name and address.)

(13) Sales agent (Name and address.)

(14) Output per day 600 (Average—gross or net tons.) (15) Maximum day's output 700 (During past year.) (16) Last year's output (Gross or net tons.)

(17) Output from advance workings, per cent 100 (At present.) (18) Lifetime of mine (Years—estimated.)

(19) Run-of-mine, per cent (Of output shipped.) (20) Is coal screened? yes (21) Type of screens bar

(22) Type of washer (23) Per cent of coal washed

(24) Maximum size washed (25) Sizes produced (Washed coal.)

(26) Sizes produced lump mine, run, Segs. (Of coal not washed.) (27) Is coal picked? (State whether on car or belt.)

(28) Per cent of coal coked (At mine.) (29) Sizes coked (Screenings, crushed, washed, etc.)

(30) Type and number of ovens (31) Remarks (For any additional information indicate after subject by mark X if additional information is given here.)

(32) Can Nos. X693, X31, 8606, T616, H215, [illegible] E 864 (Give Nos. of all samples forwarded.)

(33) Laboratory Nos. A 87781 to A 87786 (Laboratory to fill in immediately below corresponding can number.)

(34) Mine sampled at 3 (Number.) points, by Herbert, Miller, Mowery, Vincennes, Ind. (Collector.) (Office.) on 2/14/33 (Date.)

Above information copied from Card A by M. McDermott on 3/24/33, 19

8—6372

Form 261

DEPARTMENT OF COMMERCE
BUREAU OF MINES

DUST-ANALYSIS REPORT

Test No. _____ Lab. No. A 87786

Sample of road dust (through 20-mesh screen). Can No. E 864

Operator Moweaqua Coal Corp. Mine Moweaqua

State Illinois County Shelby Bed No. 5

Town Moweaqua

Location in mine main west 200 ft. inby main overcast

Method of sampling Std Gross weight, lbs. _____ Net weight, gms. 865.

Date of sampling 2/14/33 Date of Lab. sampling 2/23/33 Date of analysis _____

For B. of M. section Mine Acc. Collector Herbert, Miller, Mowery

		Coal (Air dried)	Coal (As received)	Coal (Moisture free)	Coal (Moisture and ash free)
	Air-dry Loss 5.3				
Proximate Analysis	Moisture	3.5	8.6		
	~~Volatile matter~~ Comb.	53.8	51.0	55.8	(a)
	Fixed carbon				
	Ash	42.7	40.4	44.2	
		100.0	100.0	100.0	
Ultimate Analysis	Hydrogen		Grams	Per cent	
	Carbon (on 20 mesh)		427.0	33.0	
	Nitrogen (thru 20 mesh)		865.0	67.0	
	Oxygen (total wt. of sample)		1292.0		
	Sulphur				
	Ash				

sample collected just outby explosion area. Dust represents composite of 4 cuts about 15 feet apart.

Calorific value determined					
	Calories				
	British thermal units				

Screen test,	Cumulative per cent.
through 20 mesh	100
through 48 mesh	66.9
through 100 mesh	42.7
through 200 mesh	30.6

Area from which sample was taken (sq. ft.) _____

Date, 3/2/33 (Signed) H. M. Cooper, *Chemist.*

(a) This figure is the ratio of volatile combustible to total combustible.

U. S. GOVERNMENT PRINTING OFFICE: 1930 11—9383

Form 261

DEPARTMENT OF COMMERCE
BUREAU OF MINES

DUST-ANALYSIS REPORT

Test No. _____ Lab. No. A 87785

Sample of roof & rib dust (through 20-mesh screen). Can No. H 215

Operator Moweaqua Coal Corp. Mine Moweaqua

State Illinois County Shelby Bed No. 5

Town Moweaqua

Location in mine main west 200 ft. inby main overcast

Method of sampling Std Gross weight, lbs. _____ Net weight, gms. 615.

Date of sampling 2/14/33 Date of Lab. sampling 2/23/33 Date of analysis _____

For B. of M. section Mine Acc. Collector Herbert, Miller, Mowery

		Coal (Air dried)	Coal (As received)	Coal (Moisture free)	Coal (Moisture and ash free)
	Air-dry Loss 5.7				
Proximate Analysis	Moisture	6.2	11.6		
	~~Volatile matter~~ Comb.	40.2	37.9	42.9	(a)
	Fixed carbon				
	Ash	53.6	50.5	57.1	
		100.0	100.0	100.0	
Ultimate Analysis			Grams	Per cent	
	Hydrogen				
	Carbon (on 20 mesh)		289.0	32.0	
	Nitrogen (thru 20 mesh)		615.0	68.0	
	Oxygen (total wt. of sample)		904.0		
	Sulphur				
	Ash				

Ash sample collected just outby explosion area. Dust collected from timbers, lagging and from ledges of rock gobbed behind lagging from about 75 linear feet of entry.

Calorific value determined					
	Calories				
	British thermal units				

	Cumulative per cent.
Screen test, through 20 mesh	100
through 48 mesh	69.4
through 100 mesh	50.8
through 200 mesh	39.9

Area from which sample was taken (sq. ft.) _____

Date, 3/2/33 (Signed) H. M. Cooper, *Chemist.*

U. S. GOVERNMENT PRINTING OFFICE: 1930

(a) This figure is the ratio of volatile combustible to total combustible.

11—9383

Form 261

DEPARTMENT OF COMMERCE
BUREAU OF MINES

DUST-ANALYSIS REPORT

Test No. _____ Lab. No. A 87784

Sample of road dust (through 20-mesh screen). Can No. T 616

Operator Moweaqua Coal Corp. Mine Moweaqua

State Illinois County Shelby Bed No. 5

Town Moweaqua

Location in mine main west 200 ft. inby 16 north

Method of sampling Std Gross weight, lbs. _____ Net weight, gms. 834.

Date of sampling 2/14/33 Date of Lab. sampling 2/23/33 Date of analysis _____

For B. of M. section Mine Acc. Collector Herbert, Miller, Mowery

	Air-dry Loss 4.6	Coal (Air dried)	Coal (As received)	Coal (Moisture free)	Coal (Moisture and ash free)
Proximate Analysis	Moisture	3.7	8.1		
	~~Volatile matter~~ Comb.	28.3	27.0	29.4	(a)
	Fixed carbon				
	Ash	68.0	64.9	70.6	
		100.0	100.0	100.0	
Ultimate Analysis	Hydrogen		Grams	Per cent	
	Carbon (on 20 mesh)		442.0	34.6	
	Nitrogen (thru 20 mesh)		834.0	65.4	
	Oxygen (total wt. of sample)		1276.0		
	Sulphur				
	Ash				

sample composite of six cuts made at about 10 ft. intervals at point where flame died out.

Calorific value determined					
	Calories				
	British thermal units				

	Cumulative per cent.
Screen test, through 20 mesh	100
through 48 mesh	67.5
through 100 mesh	37.5
through 200 mesh	24.1

Area from which sample was taken (sq. ft.) _____

Date, 3/2/33 (Signed) H. M. Cooper, *Chemist.*

U. S. GOVERNMENT PRINTING OFFICE: 1930

(a) This figure is the ratio of volatile combustible to total combustible.

11—9383

Form 261

DEPARTMENT OF COMMERCE
BUREAU OF MINES

DUST-ANALYSIS REPORT

Test No. _____ Lab. No. A 87781

Sample of road dust (through 20-mesh screen). Can No. X 693

Operator Mowequa Coal Corp. Mine Mowequa

State Illinois County Shelby Bed No. 5

Town Mowequa

Location in mine on 15 south off main west 100 ft. outby 9 & 10 east

Method of sampling Std Gross weight, lbs. _____ Net weight, gms. 981

Date of sampling 2/14/33 Date of Lab. sampling 2/23/33 Date of analysis _____

For B. of M. section Mine Acc. Collector Herbert, Miller & Mowery

		Coal (Air dried)	Coal (As received)	Coal (Moisture free)	Coal (Moisture and ash free)
	Air-dry Loss 3.9				
Proximate Analysis	Moisture	3.8	7.6		
	xxxxxxxxx Comb.	36.3	34.8	37.7	(a)
	Fixed carbon				
	Ash	59.9	57.6	62.3	
		100.0	100.0	100.0	
Ultimate Analysis	Hydrogen		Grams	Per cent	
	on 20 mesh				
	Carbon		655.0	40.0	
	thru 20 mesh		981.0	60.0	
	Nitrogen				
	total wt. of sample		1636.0		
	Oxygen				
	Sulphur				
	Ash				

Road dust sample five cuts made at 10 ft. intervals at point where flame of explosion stopped.

Calorific value determined					
	Calories				
	British thermal units				

	Cumulative per cent.
Screen test, through 20 mesh	100
through 48 mesh	69.0
through 100 mesh	48.1
through 200 mesh	29.5

Area from which sample was taken (sq. ft.) _____

Date, 2/28/33 (Signed) H. M. Cooper, *Chemist.*

U. S. GOVERNMENT PRINTING OFFICE: 1930

[a] This figure is the ratio of volatile combustible to total combustible.

11—9383

Form 261

DEPARTMENT OF COMMERCE
BUREAU OF MINES

DUST-ANALYSIS REPORT

Test No. _____ Lab. No. A 87782

Sample of roof & rib dust (through 20-mesh screen). Can No. X 31

Operator Mowequa Coal Corp. Mine Mowequa

State Illinois County Shelby Bed No. 5

Town Mowequa

Location in mine on 15 south off main west 100 ft. outby 9 & 10 E.

Method of sampling Std Gross weight, lbs. _____ Net weight, gms. X 404.

Date of sampling 2/14/33 Date of Lab. sampling 2/23/33 Date of analysis _____

For B. of M. section Mine Acc. Collector Herbert, Miller, Mowery

		Air-dry Loss 4.2	Coal (Air dried)	Coal (As received)	Coal (Moisture free)	Coal (Moisture and ash free)
Proximate Analysis	Moisture		4.9	8.9		
	~~Volatile matter~~ Comb.		37.9	36.3	39.8	(a)
	Fixed carbon					
	Ash		57.2	54.8	60.2	
			100.0	100.0	100.0	
Ultimate Analysis				Grams	Per cent	
	Hydrogen					
	Carbon on 20 mesh			185.0	31.4	
	Nitrogen thru 20 mesh			404.0	68.6	
	Oxygen total wt. of sample			589.0		
	Sulphur					
	Ash					
Calorific value determined	Calories					
	British thermal units					

Entry is posted on each side of track and lagged and gobbed with rock; dust collected from lagging and ledges of gob. Sample collected at point where flame died out.

	Cumulative per cent.
Screen test, through 20 mesh	100
through 48 mesh	62.4
through 100 mesh	42.7
through 200 mesh	31.5
Area from which sample was taken (sq. ft.)	

Date, 3/2/33 (Signed) H. M. Cooper, *Chemist.*

a This figure is the ratio of volatile combustible to total combustible.

U. S. GOVERNMENT PRINTING OFFICE: 1930

Correspondence

December 25, 1932
to
April 05, 1933

Western Union

Decatur, Ill.
Dec 25, 1932

US B M
Mr. J J Forbes.

Explosion Moweaqua Coal Corp., Moweaqua, Ill. 8:20 am. Starting time 8 am. 57 men in mine. 3 cagers at bottom escaped. Mine heavily timbered Entries closed with falls. Men probably 1/2 mile inside first bad fall. Seals on a mine fire on inside completed two hours before explosion. Possibly explosion behind seals caused explosion. Mine dry and dusty. Explosion probably propagated by coal dust. No rock dusting or face watering[?]. Open light mine. Forbes, Miller and myself at mine.

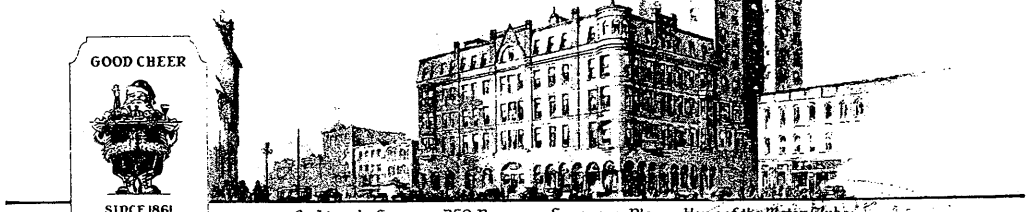
Signed Hartert[?].

Rec'd 12:45 am 12/25/32 RKH.
Relayed to JJF 12:52 am 12/25/32 RKH

Message relayed by WU night letter to Mr. Harrington, Washington, DC. on authority of Mr. Forbes at 12:55 am 12/25/32

M[?] RKH.

St. Nicholas Hotel Decatur
AND FIREPROOF ANNEX ILLINOIS



On Lincoln Square — 250 Rooms — European Plan — Home of the Motor Club

Dec 26, 32

Dear Mr Forbes;

I am enclosing here with sketch of the approximate layout underground. There were 55 men in the mine at the time of the explosion, 3 being cagers at the bottom of shaft who escaped. 12 bodies were gotten out yesterday from a main trip on the main West parting just out by the 15th south.

The roof in the mine is a soft white shale and the haulage roads were timbered solid from shaft bottom in, and were also lagged top and sides with 2 to 8 ft of loose rock above and 1 ft or 2 ft on the sides. The blowing out of timbers therefore made a bad situation.

From the crosscut on the main West side nearly all the timber is blown out and at the parting on the main west was tight for 200 ft.

Yesterday we finished working our way

2

St. Nicholas Hotel Decatur

AND FIREPROOF ANNEX ILLINOIS

On Lincoln Square — 250 Rooms — European Plan — Home of the Motor Club.

here the fall on the parting morning by bodies. Last night we finished a temporary undercast at the 15 south and are now ready to try and get into the 15th south.

They say the top in the south entries is better than else where in the mine and believe we will make better progress in these entries. The mouth of the 15th N is cased tight.

The night before the explosion they had sealed off a fire in a room entry near the head of the 16 N, finishing about 6 oclock, 2 hours before the explosion.

While all evidence is covered up with falls yet from appearance of overcast at 15 South I believe explosion came out of the N. entries, hence may not have gone very far up the South entries and there is a very remote possibility that

St. Nicholas Hotel Decatur
AND FIREPROOF ANNEX ILLINOIS

On Lincoln Square — 250 Rooms — European Plan — Home of the Motor Club.

there may be five men at the face of the entries

The explosion occurred at 8 am just as the whistle was blowing for starting time. A majority of the men are hauled in by man trip. The motor takes the trip to the parting on main West and there it is split, first taking the south men in and then comes back and takes in the N men. The bodies removed at the parting were those of men who worked on the North and were apparently waiting for the return of the motor. The drivers go in ahead of the man trip and part of the men ride in with them.

The Moweaqua Coal Co is a cooperative affair, the mine having leased and operated by the men. They have nothing and

11

all work to date has been done by volunteers who will not get any compensation and I am fearfull that in a day or two we will be very short of help and most of the men we do get are not inclined to over work themselves.

The top is bad and if we do not get some one hurt or killed I will be very thankful.

The mine is operated with open lights. The coal is under cut and shot with black powder by shotfirers after the men are out of the mine.

The shaft is 618 ft deep

The mine is worked room & pillar and is in #5 bed

5

St. Nicholas Hotel Decatur
AND FIREPROOF ANNEX ILLINOIS

GOOD CHEER
SINCE 1861

On Lincoln Square — 250 Rooms — European Plan — Home of the Motor Club.

yesterday [illegible] went home and turned it over to me. He will be back to day.

This looks like a two or three weeks job. A swell Christmas present.

My Turkey consisted of a sandwich and burnt coffee.

Have the usual horde of newspaper men and coffee hounds.

Yours truly
Carl Herbert

P.S. have sent similar letter to Harrington hope you can read it please send copy to Lanning for my files.

CH

C
O
P
Y

Decatur, Illinois
December 26, 1932.

Dear Mr. Forbes:

I am inclosing herewith sketch of the approximate lay-out underground. There were 55 men in the mine at the time of the explosion, 3 being cagers at the bottom of shaft who escaped; 12 bodies were gotten out yesterday from a man trip on the main west parting just outby the 15th south.

The roof in the mine is a soft white shale and the haulage roads were timbered solid from shaft bottom in, and were also lagged top and sides with 2 to 8 feet of loose rock above and 1 to 2 ft. on the sides. The blowing out of timbers, therefore, made a bad situation.

From the overcast on the main west inby nearly all the timber is blown out and at the parting on the main west was tight for 200 ft.

Yesterday we finished working our way through the fall on the parting, recovering 12 bodies. Last night we finished a temporary undercast at the 15 south and are now ready to try and get into the 15th south.

They say the top in the south entries is better than elsewhere in the mine and believe we will make better progress in these entries. The mouth of the 15th N is caved tight.

The night before the explosion they had sealed off a fire in a room entry near the head of the 16 N, finishing about 6 o'clock, 2 hours before the explosion.

While all evidence is covered up with falls, yet from appearance of overcast at 15 South, I believe explosion came out of the N. entries, hence may not have gone very far up the South entries and there is a very remote possibility that there may be live men at the face of the entries.

The explosion occurred at 8 a.m., just as the whistle as blowing for starting time. A majority of the men are hauled in by man trip. The motor takes the trip to the parting on main west, and there it is split, first taking the south men in and then comes back and takes in the N men. The bodies recovered at the parting were those of men who worked on the North and were apparently waiting for the return of the motor. The drivers go in ahead of the man trip and part of the men ride in with them.

The Moweaqua Coal Co. is a cooperative affair; the mine being leased and operated by the men. They have nothing and all work to date has been done by volunteers who will not get any compensation, and I am fearful that in a day or two we will be very short of help and most of the men we do get are not inclined to overwork themselves.

cc-Vincennes ✓

MH

The top is bad and if we do not get some one hurt or killed I will be very thankful.

The mine is operated with open lights. The coal is undercut and shot with black powder by shot firers after the men are out of the mine.

The shaft is 618 ft. deep.

The mine is worked room and pillar and is in #5 bed.

Yesterday Millhouse went home and turned it over to me. He will be back today.

This looks like a two or three weeks job. A swell Christmas present.

My turkey consisted of a sandwich and bum coffee.

Have the usual horde of newspaper men and coffee hounds.

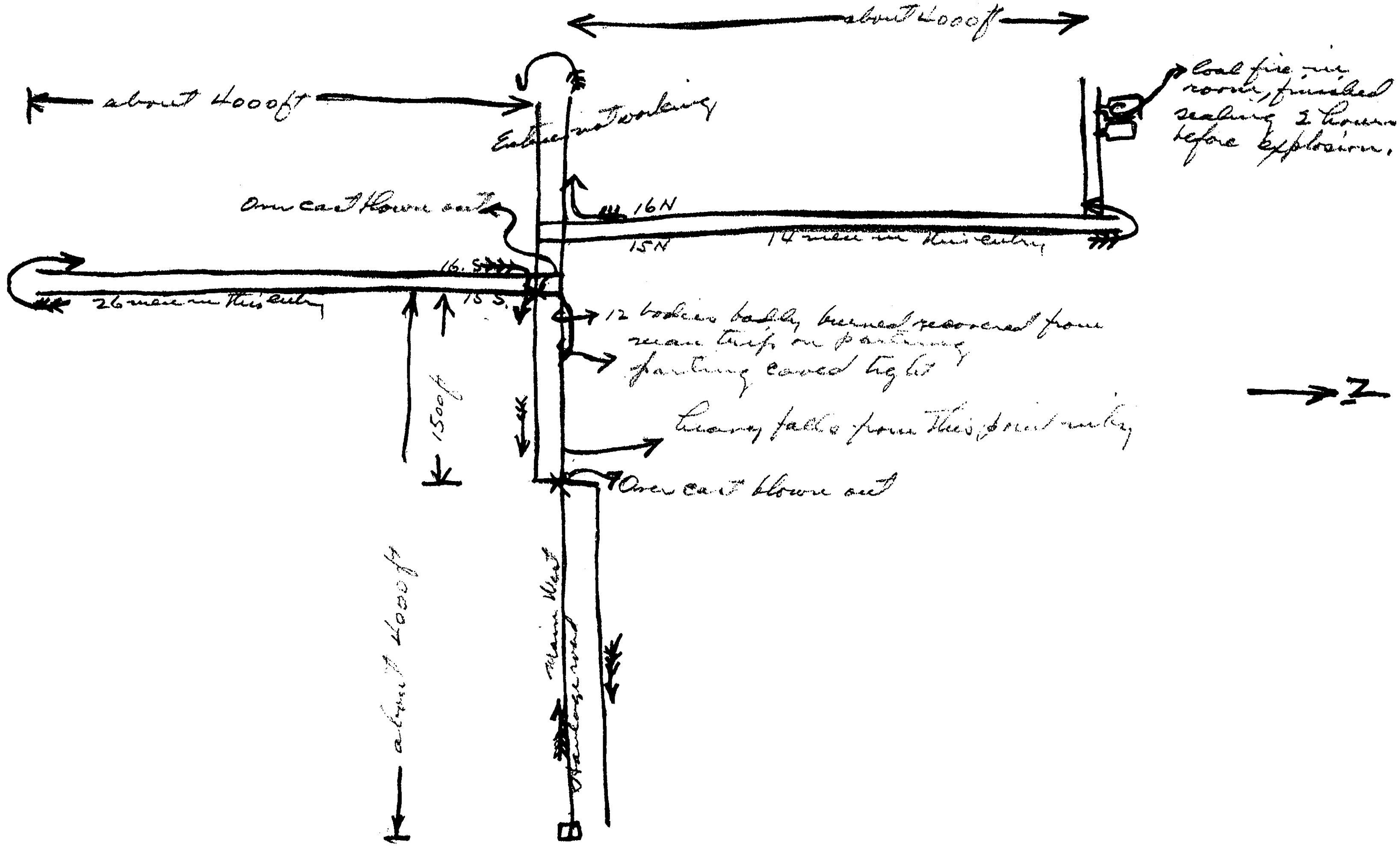
Yours truly,

/s/ C. A. HERBERT

P.S. Have sent similar letter to Harrington. Hope you can read it.

Please send copy to Vincennes for my files.

cc-Vincennes



about 4000 ft
about 4000 ft
Coal fire in room, finished sealing 2 hours before explosion.
Entries not working
Over cast blown out
16 N
15 N
14 men in this entry
16. S
15 S.
26 men in this entry
12 bodies badly burned recovered from man trip on parting
parting caved tight
N
Heavy falls from this point inby
150 ft
Over cast blown out
about 4000 ft
Main West Haulage road

Vincennes, Indiana.

December 27, 1932.

Mr. D. Harrington,
Chief Engr. Safety Div.,
U. S. Bureau of Mines,
Washington, D. C.

Dear Mr. Harrington:

Following up my letter to you yesterday, also my wire: yesterday we got the air up to the south entry as I stated in my letter, and the first 1500 feet of the 15th south entry was a solid fall of rock. However, there was enough space between the roof and fall so that it was possible to travel over it. From the end of the fall in to the face of the 15th south the roof was then better and there were no falls.

The flame and force of the explosion went into the south about 2000 feet. The twenty-seven men whose bodies were recovered in the 15th south, were in the man trip inby the falls. The flame however, had gotten in as far as these men and they were all of them more or less burned. A machine man and mule driver had been probably about 800 or 900 feet inby the trip and had come out as far as the man trip before they were overcome.

After getting the bodies out yesterday evening, two teams belonging to the State, were going to explore the inside workings to make sure that all of the bodies had been recovered, but if the company's count of the men in the south is correct, all of the bodies have been recovered. You will note that in my letter yesterday, there were 26 men, whereas, as a matter of fact, there were 27 recovered; this discrepancy is due to the motorman of the trip not having been included as one of the employees in the south section.

The task ahead of us now is to go into the north entries, and as the explosion came out of these and we have been advised that the roof is worse in the north entries than in the south, it will probably be a difficult matter to get in. It may be that there are one or two bodies still under the fall at the parting on the main west where the 12 bodies were recovered.

I am also advised that this mine makes a considerable amount of gas; there are therefore two possibilities of the origin of the explosion - either an explosion occurred behind the fire seals and initiated the explosion or possibly one of the men who went in with the drivers ahead of the man trip, may have ignited a pocket of gas up near the face. From appearances now it is rather questionable whether we will be able to definitely determine the origin.

We are leaving this afternoon for the mine but there will probably be a lull for a day or two as it will be a case of mucking rock probably for the next couple days before we can get into the north entries.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

12/24/32

ccJJForbes.

A. E. Staley Manufacturing Company

CORN PRODUCTS

Decatur, Ill.

December 30, 1932

Mr. C. A. Herbert
District Engineer
United States Bureau of Mines
Vincennes, Indiana

Dear Sir:

Mr. Robert Schaub of the Decatur Herald and Review, has requested that we send you a chart of our recording barometer covering Saturday, December 24. This chart is attached herewith.

After this has served its purpose, I will appreciate your returning it to us.

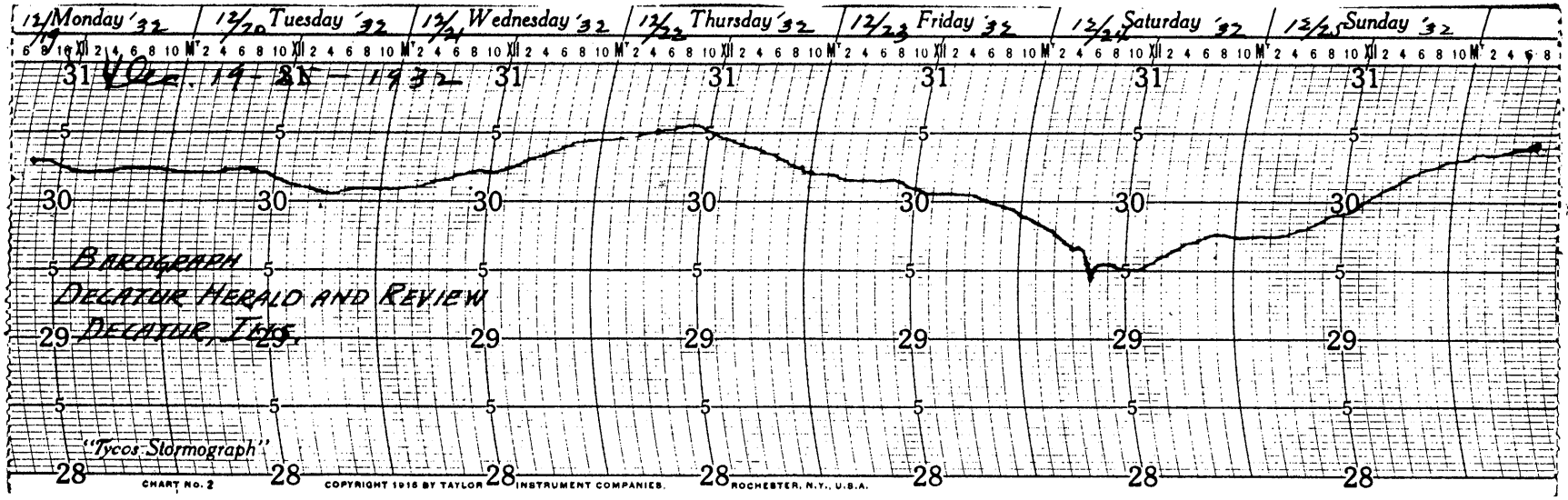
Yours very truly,

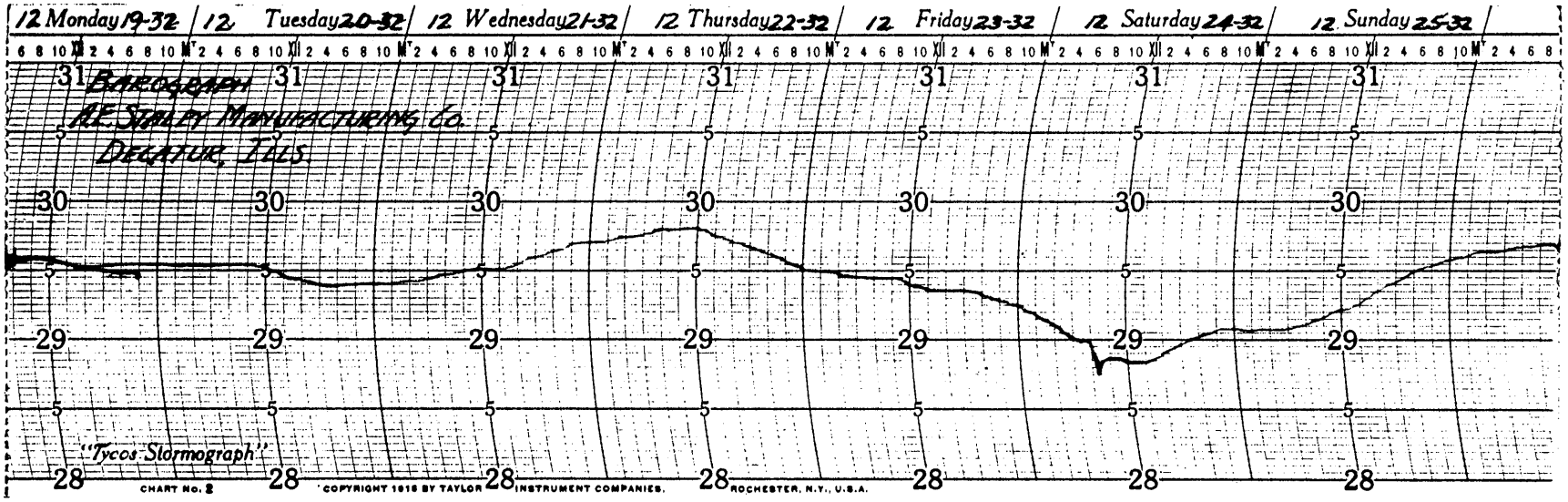
A. E. STALEY MANUFACTURING COMPANY

A E Staley Jr

AES Jr/ls

President


12/Monday '32
12/20 Tuesday '32
12/21 Wednesday '32
12/22 Thursday '32
12/23 Friday '32
12/24 Saturday '32
12/25 Sunday '32
Dec. 19 - 25 - 1932
31
30
29
28
BAROGRAPH
DECATUR HERALD AND REVIEW
DECATUR, ILL.
"Tycos Stormograph"
CHART No. 2
COPYRIGHT 1915 BY TAYLOR INSTRUMENT COMPANIES.
ROCHESTER, N.Y., U.S.A.


12 Monday 19-32
12 Tuesday 20-32
12 Wednesday 21-32
12 Thursday 22-32
12 Friday 23-32
12 Saturday 24-32
12 Sunday 25-32
BAROGRAPH
AE STALEY MANUFACTURING CO.
DECATUR, ILLS.
"Tycos Stormograph"
CHART No. 2
COPYRIGHT 1918 BY TAYLOR INSTRUMENT COMPANIES.
ROCHESTER, N.Y., U.S.A.

DECATUR HERALD AND REVIEW

DECATUR HERALD Established 1880 DECATUR REVIEW Established 1878

MORNING EVENING SUNDAY

DECATUR NEWSPAPERS, INC.- Publishers

DECATUR ILLINOIS

December 30, 1932

Mr. C. A. Herbert, District Engineer
United States Bureau of Mines
Vincennes, Indiana

Dear Mr. Herbert

Here is the Herald and Review barograph record for last week for which you asked in Mr. Shaffer's office Friday. A. E. Staley, Jr., president of the A. E. Staley Manufacturing Company, told me this afternoon that he would send you his company's barograph record for the same period for comparison.

The Herald and Review barograph is adjusted to record air pressures at sea level. According to calculations by Clarence J. Root, Department of Agriculture Meteoroligist, at Springfield, Illinois, the actual air pressure in Decatur is sixty-eight hundredths (.68) of an inch lower than that shown.

The barograph is compared every two or three months with government readings as recorded on the daily government weather maps. The pressures here for a week are determined by interpolation between the isobars and the average of these is compared with the average pressure at 7:00 A.M. for the same week recorded on the Herald and Review barograph. There has been no difference in the last two comparisons made. The last check was made about six weeks ago.

If the exact time of the pressure readings are of interest it is important to know that the clock which operates the barograph drum was between fifteen and twenty minutes slow Saturday morning. Before I had learned of the explosion at the mine Saturday I noticed the unusual drop and rise in pressure indicated here about 8:00 A.M. At that time I checked the time shown on the barograph and found it fifteen or twenty minutes slow. My brother spoke later of the sudden drop and had made the same observation of the time. Consequently, the low pressure shown here at 8:00 A.M. should have been indicated at 8:15 or 8:20.

Yours very truly

Robert C. Schaub

Robert C. Schaub
DECATUR HERALD AND REVIEW

RCSchaub
gc

Vincennes, Indiana.

January 2, 1933.

Mr. J. J. Forbes,
Supervis. Engr. Instr. Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

Dear Mr. Forbes:

The investigation of the explosion that occurred in the Moweaqua Mine, Moweaqua, Illinois on December 24, 1932, is scheduled for Wednesday, January 4. However, I do not know whether or not I will be able to be present, for I am feeling pretty low today, due to a touch of the flu.

If I am feeling better I shall of course go over Wednesday morning for the investigation.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

cc
DHarrington.

MA 1/4/33

January 2, 1933.

Mr. Glenn A. Shafer,
Gen. Manager, Pana Coal Co.,
Pana, Illinois.

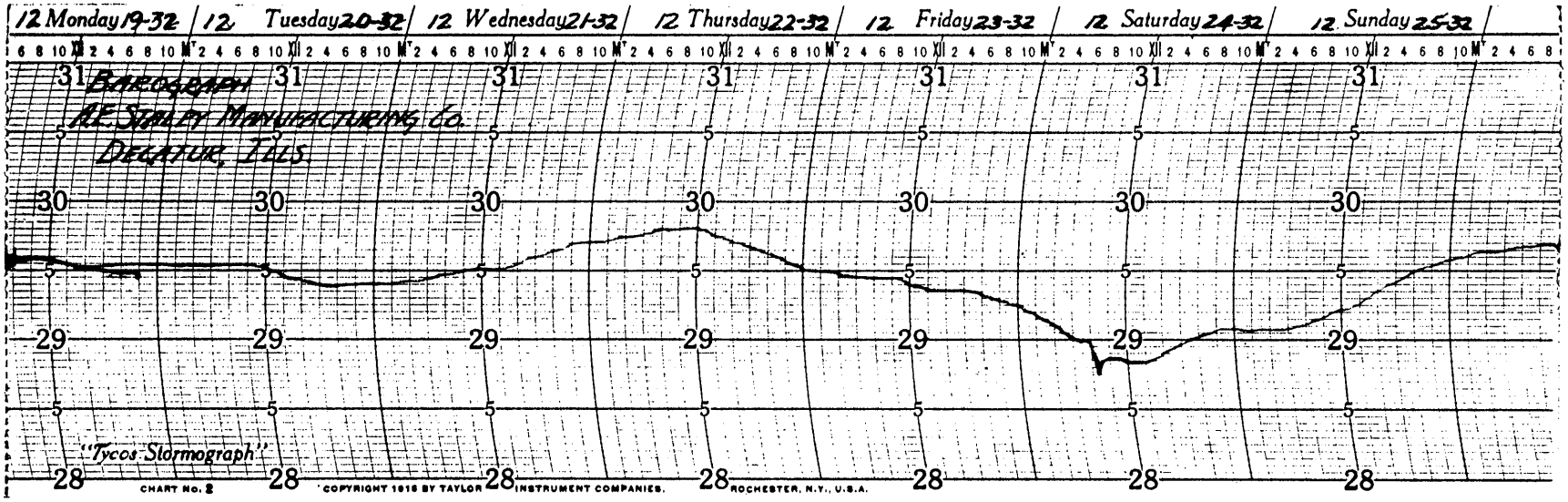
Dear Mr. Shafer:

I am enclosing herewith, for your information, copies of barographs received from the Decatur Herald and Review, and also the A. E. Staley Manufacturing Company of Decatur, Illinois.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-2


12 Monday 19-32
12 Tuesday 20-32
12 Wednesday 21-32
12 Thursday 22-32
12 Friday 23-32
12 Saturday 24-32
12 Sunday 25-32
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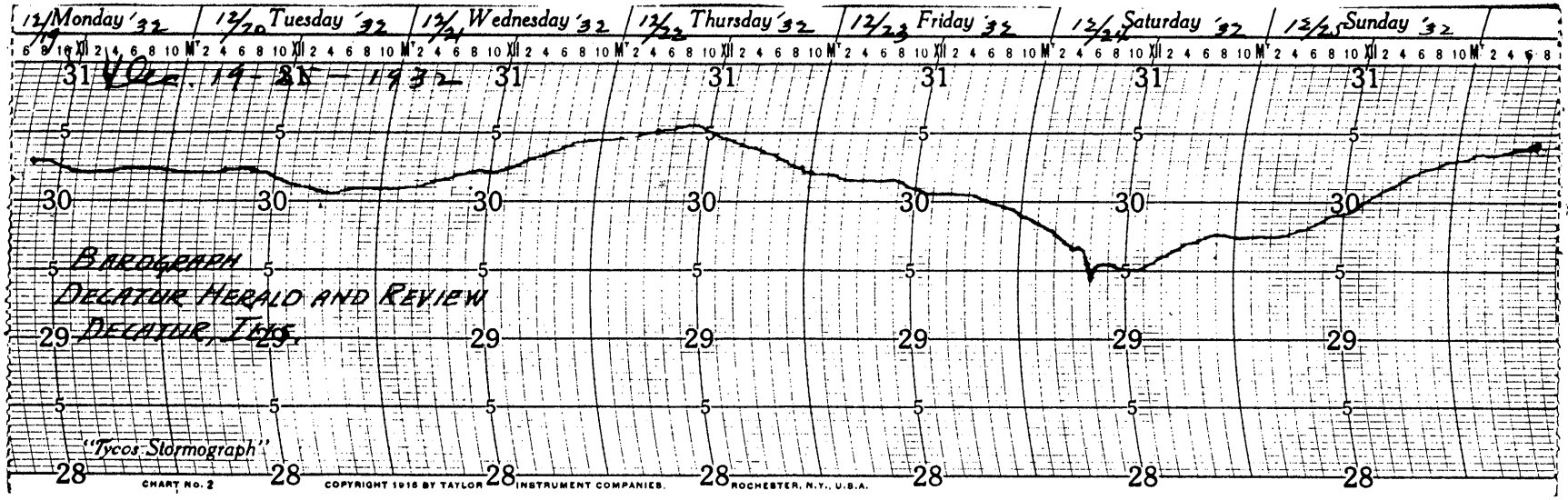
AE STALEY MANUFACTURING CO.
DECATUR, ILLS.
"Tycos Stormograph"
CHART No. 2
COPYRIGHT 1918 BY TAYLOR INSTRUMENT COMPANIES.
ROCHESTER, N.Y., U.S.A.


12/Monday '32
12/20 Tuesday '32
12/21 Wednesday '32
12/22 Thursday '32
12/23 Friday '32
12/24 Saturday '32
12/25 Sunday '32
Dec. 19 - 25 - 1932
31
30
29
28
BAROGRAPH
DECATUR HERALD AND REVIEW
DECATUR, ILL.
"Tycos Stormograph"
CHART No. 2
COPYRIGHT 1915 BY TAYLOR INSTRUMENT COMPANIES.
ROCHESTER, N.Y., U.S.A.

January 2, 1933.

Mr. Robert C. Schaub,
Decatur Herald and Review,
Decatur, Illinois.

Dear Mr. Schaub:

I wish to acknowledge, with many thanks, your letter of December 30 with which you enclosed the Decatur Herald and Review barograph record for the week of December 19-25 inclusive.

I am sending this barograph in to be photostated and just as soon as I have it back I will return it to you. This will take about a week or ten days and I trust this will be entirely satisfactory to you.

I note what you say about the clock on the barograph being fifteen minutes late so that the low pressure shown should be 8:15 instead of 8:00 a.m. It is quite possible however, that inasmuch as the explosion occurred at exactly at 8 o'clock, the low pressure recorded at Decatur at 8:15 may have been noticeable at Moweaqua some few minutes earlier, depending upon the direction in which the low was traveling.

In the same mail I received barograph record from the A. E. Staley Manufacturing Co., of Decatur, and I appreciate your kindness in asking Mr. Staley to forward this barograph to me.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

January 2, 1933.

Mr. A. E. Staley, Jr.,
Pres., A. E. Staley Manufacturing Co.,
Decatur, Illinois.

Dear Sir:

I wish to acknowledge with many thanks, your letter of December 30 with which you enclosed the barograph record for the week of December 19-25 inclusive.

I am forwarding thie record into our Pittsburgh office to be photostated and just as soon as I have it back I will return it to you. This will require possibly a week's time and I trust this will be entirely satisfactory to you.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

copy - letter

State of Illinois Dept. of Mines, Minerals,
January 4, 1933.

Hon. John G. Millhouse, Director,
Department of Mines and Minerals,
State House, Springfield, Illinois.

Sir:

We, your Investigation Commission, appointed to inquire into the cause of the disaster at the Moweaqua Coal Corporation's Mine Number One, Moweaqua, Illinois, at eight A. M. on December twenty-fourth, 1932, beg to submit for your approval the result of our investigation, as follows:-

Our investigation convinces us that the explosion originated from the 5th East off the 15th North by methane gas being released as a result of a fall of roof and concretionary nodules falling against the seals, breaking them outward, the methane gas being carried into the air current inward to the men, who had just passed by in a car hauled by a mule. The men, arriving at the parting, in getting out of the car, evidently ignited the gas with their open lights, the flame traveling backward on the 15th North coming in contact with a large body of gas located at that point. The explosion, at this point, seems to have divided, going North and South.

We found the first empty car going in on the parting standing on its end, showing that the force of the explosion had traveled that way. The spraggs in the loaded car wheel being in reverse position indicated that the loaded cars had been pushed back towards the North. From the 5th East, traveling out South, indications showed that the force of the explosion had traveled outward also.

The 3rd and 4th East stoppings had been destroyed. On our first entrance in there, methane gas was found. At the 1st and 2nd East off the 15th North the stoppings had been destroyed and at the inside of the 15th North three feet of explosive gas was found outside of two old rooms.

There was evidence that gas had been given off in large quantities in all of these openings, which the first exploration proved. The greatest violence had taken place at the man trip where twelve bodies were found outside of the 15th South in the cars and had radiated in all directions from that point, with the exception of the Main West inside of the 15th North and was less violent on the inside workings than it was throughout the mine.

We are convinced that due to a low barometric pressure taking place immediately after eight A.M. a drop of .3 of an inch occurred at that time would naturally cause gas to exude in greater volume from the old workings at this point.

The explosion in the 5th East no doubt forced gases from some of the old workings on the men located in the man trip at the 15th South and being ignited by their open lights the explosion radiated with severe violence from that point in all directions.

There is also the probability that coal dust intensified the explosion, but we have found little evidende of coal dust being an active agent.

(see over)

The violence of the explosion was such as to cause the roof to fall in the 15th South a distance of eight hundred feet and outward to near the 11th North towards the shaft bottom and into the 15th North for a distance of fifteen hundred feet, and from there in, the effect of the explosion decreased.

We are convinced that this disaster was caused by an explosion of methane gas, resulting in fifty-four men losing their lives.

(Signed) Thomas English,
Inspector-at-Large

" John K. Fraser
State Mine Inspector 6th District,

" Jas. Weir,
State Mine Inspector 10th District

" W. L. Morgan,
Economic Investigator.

JOHN G. MILLHOUSE
DIRECTOR

STATE OF ILLINOIS
DEPARTMENT OF MINES AND MINERALS

PETER JOYCE
ASSISTANT DIRECTOR

SPRINGFIELD
January
4
19 33

Hon. John G. Millhouse, Director,
Department of Mines and Minerals,
State House,
Springfield, Illinois.

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(Signed) Thomas English
Inspector-at-Large

(Signed) John K. Fraser
State Mine Inspector 6th District

(Signed) Jas Weir
State Mine Inspector 10th District

(Signed) W. L. Morgan
Edonomic Investigator.

PANA COAL COMPANY

GLENN A. SHAFER, PRES.

"ORIGINAL PANA COAL"

PANA, ILINOIS

Pana, Ill. Jan 5, 1933.

Mr. C. A. Herbert,

Supervising Engineer

United States Bureau of Mines

Vincennes, Indiana.

My Dear Mr. Herberts:

It was quite a shock to me to learn from Mr. Miller and Mr. Forbes that since your return home from Moweaqua that you had been confined to your home with an attack of the "Flu".

I know just how you feel because ever since I have been able to get home I have been fighting off the same myself. So far I havekept up but I may have to get to bed at any time. My doctor says I must be very careful. However I had to be at Moweaqua yesterday for the final inspection of the mine by the State Director and now I must get so that I can help in the reconstruction period.

I want to thank the members of your staff for their honest and very helpful co-operation in this terrible disaster. I also want to thank you for your kindness in sending to me a copy of the barographs of the Staley Company and the Decatur Herald & Review. I am so glad to get these for my files and to be able to study the unprecedented drop in pressure just at the time of the explosion which explains the exact reason why the gas came out of the old workings in a mine where we never before had been bothered with any gas in a quantity that might cause any trouble.

PANA COAL COMPANY

GLENN A. SHAFER, PRES.

"ORIGINAL PANA COAL"

PANA, ILINOIS

Mr Millhouse has made a ruling to me that he will class this mine as a gaseous mine at the present time and recommend that nothing but closed lights be used. I had brought this subject up to him the other day and said that I thought that I myself would recommend that if the mine was opened again that nothing but closed lights be used and I have given strict orders that no one shall go below at all with anything else but a closed light even upon the bottom to feed the mules and start the mine pump.

Mr.Forbes has requested of me that I notify your office when we think that we will be able to get inside to the inner works in the North where the fire was sealed.We were unable to get this far yesterday on account of the great amount of black damp and I think that it will be several days before we will be able to get there.However just as soon as we are able to get in I will let you know because I know that your men want to examine the seals that were put up where the fire was located before the explosion.

Be very careful of yourself now and get over that "Flu".

Sincerely yours

Glenn A. Shafer

Vincennes, Indiana.

January 7, 1933.

Mr. J. J. Forbes,
Supervis. Engr. Instr. Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

Dear Mr. Forbes:

On Wednesday, January 4, Mr. Miller and Mr. Forbes attended a "so-called" investigation at the mine at Moweaqua, Illinois. However, due to the fact that no effort had been made to restore ventilation, they were unable to get any farther in the north entries than they had at the time the bodies were recovered, and the investigation was not at all thorough nor complete.

The findings of the State Department, (copy attached), while they may be correct, are not based on any adequate investigation.

I have a letter from Mr. Shafer in which he advises that as soon as they get the air into the north entries, making it possible to get up to where the fire was, we will be notified so that we can make a little more thorough and adequate investigation than was made on Wednesday. The theory that has been advanced by the State Department does not look on the face of it, apparently to be entirely correct, and we believe a more thorough investigation will possibly make some other disclosures.

I have been under the weather ever since I returned from Moweaqua, have spent most of the week in bed and am still hardly able to get around. Just as soon as I am able, I will get over to see Mr. Shafer, to make sure that we get into the mine before the evidence has been destroyed, and will suspend judgment on the cause of the explosion until after that time.

Without question the explosion was due more to gas than to dust, as little or no evidence of coke could be found during the recovery operations. Also, the fact that so much timber was knocked out, causing such heavy falls, is not at all conclusive evidence that the explosion was particularly violent; we do not believe that it was, but the timbering was in such condition that it would not take a great deal of violence to knock it out and give a false impression as to the amount of force. The panel entries off both the north and south entries were inadequately sealed off; mostly with either just dirt stoppings or with ~~wing~~ single brick seals that were not hitched into the rib. Without question all of these panels were standing full of gas so that with the sudden drop in barometer which took place at about 8 o'clock that morning, there is no question that probably there was a considerable outflow of gas from all of these abandoned sections.

You have no doubt, a copy of the barograph from both the Staley Mfg. Co., and the Decatur Herald, blue prints of which you sent me. I would suggest, if you have not already done so, that you send copies to Mr. Harrington.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-
ccDHarrington.

January 7, 1933.

Mr. Robert C. Schaub,
Decatur Herald and Review,
Decatur, Illinois.

Dear Mr. Schaub:

I am returning herewith, the barograph record of the Decatur Herald and Review, for week of December 19-25 inclusive.

I appreciate your kindness in obtaining this for my use, and wish to thank you again for the favor.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-1

January 7, 1933.

Mr. A. E. Staley, Jr., Pres.,
The A. E. Staley Manufacturing Co.,
Decatur, Illinois.

Dear Sir:

I am returning herewith, the barograph record of your Company, for the week of December 19-25 inclusive, which you were so kind to loan to me, and which I appreciate very much.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-1

January 7, 1933.

Mr. Glenn A. Shafer,
President, The Pana Coal Co.,
Pana, Illinois.

Dear Mr. Shafer:

This is in acknowledgment of your kind letter of January 5. I came down to the office this morning, but do not feel so very good yet. I hope that you will be successful in avoiding this "flu", for it certainly is a lingering disease.

It is noted that you expect to advise us when it will be possible to get in to the inner works in the North where the fire was sealed. We would like to go in to the 15th and 16th North, and will greatly appreciate it if you will advise us when we may do so.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

Pittsburgh, Pa.
January 10, 1933.

Mr. C. A. Herbert
U. S. Bureau of Mines
412 LaPlante Bldg.
Vincennes, Ind.

Dear Mr. Herbert:

This will acknowledge your letter of January 7 pertaining to the "so-called" investigation of the Moweaqua explosion.

The copy of the report of the State Investigation Commission was read with interest and I note your comment on this investigation.

I regret to learn that you have been "under the weather" and I hope that you will recover speedily.

Very truly yours,

J. J. FORBES.

cc D. Harrington
Files

Moweaqua Coal Corporation

Erie Sootless Coal

MOWEAQUA, ILL., 1/11 1933

Mr Herbert:

For yours information regarding the sealing of the worked out panels in the 15 & 16 S & 15 & 16 N. sections of the Moweaqua Mine.

In the 15 & 16. S, the panels are sealed up to and including the 9 & 10 east and west panel entries. The 11 & 12 E 15 S. is only in about 150 ft & is not working and is not sealed.

Only the 11 & 12 W, 16 S and the 13 & 14 E 15 S. are working in the 15 South section.

In the 15 N. the panels are sealed up to and including the 5 & 6 E. The 7 & 8 E is not working and is unsealed, there are no live workings in the 15 S entry.

In the 16 N, the panels are sealed up to & including the 7 & 8 W. The 9 & 10 & 11 & 12 W. entries are the only panels working on the 16 N.

The east panel entries on the 15 N & 15 S are sealed with concrete block seals with a dirt seal placed behind them. The west panel entries on the 16 S & 16 N. are sealed with dirt stoppings.

The face parting that is not shown on the 15 S. is opposite the inby end of the 11 & 12 E 15 S.

Very truly yours

27
13
40

5x

14
7
1
12
34
21
61

MAP OF SECTION OF MINE AFFECTED BY EXPLOSION

MIDWEAQUA COAL CORPORATION, MIDWEAQUA, ILLS.

SCALE 200ft = 1 in

U.S. BUREAU OF MINES VINCENNES IND.

ILLINOIS ATHLETIC CLUB
CHICAGO

1/12-1933

Dist. Engr.
U. S. Bureau of Mines
Vincennes, Ind.

Dear Mr. Herbert;

I sincerely hope that the Mowcaqua Mine maps which I marked this morning and gave to Mr. Miller will be of some benefit to you.

While Mr. Miller was at the mine this morning, my Para mine manager Mr. John Simpson made a trip into the mine to put up a curtain at the eighth West entry off the 15th North so as to drive the air further into the inside workings. He did not go past this point except to take down the curtain

blocking the main North entry to give free passage to air to go on inside.

At this 8th West where the last man was found was a well preserved door frame but a portion of the door had been blown inwards towards the workings showing distinctly that the force had come from the outside.

Here he could find no indications of Methane gas and very little black damp.

At the entrance to the 5th East Entry, just outside the parting, where the concrete block wall had been blown inwards his safety lamp just

ILLINOIS ATHLETIC CLUB
CHICAGO

showed a small cap at the extreme top of the old wall.

He said that it might be possible that some more of the stoppings could have been blown out just inside the 8th West and will go down in a few days to investigate.

Any further developements in this situation, I will keep you informed and let you know at once when we can get to the inside workings.

Yours Very Truly

Glenn A. Shafer

January 13, 1933.

Mr. Glenn A. Shafer, Pres.,
The Pana Coal Company,
Pana, Illinois.

Dear Mr. Shafer:

This is in acknowledgment of your letter of January 12, written from Chicago, with reference to the explosion at the Moweaqua Mine.

I note what you say relative to Mr. Simpson's findings at the time he took down the curtain on the 15th north in order that the air might be thrown into these entries. I also note what you say relative to mine map which you gave to Mr. Miller. Mr. Miller will not be back to the office until Saturday and as a result I have not had an opportunity to look at it.

We would like to get into the 15th north before anything has been disturbed to a great extent, to make a little more thorough investigation. If we can be of any assistance to you in restoring the ventilation, we will be very glad to do so, and at least would like very much to have the opportunity to go into the 15th north as soon as ventilation is restored and before anything has been disturbed, in order to get a little better picture of just what occurred than it was possible to do at the time of the investigation on January 4.

Regarding the barometer reading at Decatur, copy of which barograph was sent you. We find that in talking with the weather man at Springfield, Illinois, that the low which struck Decatur at approximately 8:15 a.m. was traveling in a northerly direction at the rate of about thirty miles per hour and it is the belief of the weatherman that this low struck Moweaqua about thirty minutes in advance of the time that it hit Decatur. In other words, the extreme low point hit Moweaqua at about 7:45 - about fifteen minutes prior to the explosion.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

Vincennes, Indiana.

January 18, 1933.

Mr. R. A. Wood,
Supervis. Engr. Graphic Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

Dear Mr. Wood:

I am sending you under separate cover, one tracing of map showing explosion area in the Moweaqua Mine #1, Moweaqua, Illinois, from which I would appreciate your making eight blue prints. A requisition covering these eight prints is being enclosed herewith.

It would be appreciated if these prints could be made as promptly as possible, in order that I may have them for completion of the final report covering this explosion.

I would also appreciate it if you will kindly turn four copies of the blue prints over to Mr. J. J. Forbes, so that he may attach them to the preliminary report which will be sent to him; sending the four remaining blue prints, together with the original tracing, back to this office.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-1
ccsJJForbes,
DHarrington.

Vincennes, Indiana.

January 19, 1933.

Mr. J. J. Forbes,
Supervis. Engr. Instr. Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

SUBJECT: Preliminary report, Moweaqua Explosion.

Dear Mr. Forbes:

There is being enclosed herewith, five copies of a preliminary report on the explosion at the Moweaqua mine which occurred December 24.

Under separate cover we yesterday sent to Mr. Woods, a tracing from which we requested a number of blue prints and also requested that he turn four of these over to you. We should have asked him to turn five over to you, in order that you might attach them to the enclosed reports.

We are transmitting this report to you in order that you may have a little better idea as to the conditions that obtained at Moweaqua and it is not being sent with the idea particularly of sending it to the operator, as I hardly think it would be of any use. The present organization that has been operating the mine, is gone and it is doubtful whether a new company will be organized to clean the mine up and continue operations. The president of the company runs a filling station at Moweaqua and presumably knows nothing about the mine, and probably it would be of little use to send him a copy.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-5
ccDHarrington.

Filing - card

1/21/33

January 21, 1933 JJF:RS

Mr. D. Harrington
U. S. Bureau of Mines
Washington, D. C.

Dear Mr. Harrington:

Attached are four copies of the preliminary report on the explosion in the Moweaqua mine of the Moweaqua Coal Corporation, Moweaqua, Shelby County, Illinois, which occurred December 24, 1932, and resulted in the death of 54 miners. The preliminary report was prepared by Mr. C. A. Herbert.

Apparently, the cause of this explosion has not been definitely fixed by Mr. Herbert. It was first supposed that the explosion originated from a fire sealed in one of the room entries. Mr. Herbert indicates that, in all probability, he will be able to get into the mine within the next ten days and complete his investigation.

In accordance with Mr. Herbert's letter of January 19, copy of which went forward to you, he indicates the inadvisability of sending a copy of the report to the operator.

Very truly yours,

J. J. FORBES

Encl.

cc Files ✓ (Card made)

PANA COAL COMPANY

GLENN A. SHAFER, PRES.

"ORIGINAL PANA COAL"

PANA, ILLINOIS

Pana, Ill. Jan. 29, 1933.

Mr. C. A. Herbert, Supervising Engr.

United States Bureau of Mines

Vincennes, Ind.

Dear Mr. Herbert.

I am enclosing herewith my copy of the testimony taken at the Coroners inquest due to the Mine Disaster at Moweaqua, Ill.

As soon as your secretary has been able to copy it please return same to me for my files.

I have been gathering quite an amount of evidence, pictures, newspaper accounts etc. with all reports of this disaster and placing them in a special book file for my future record. As soon as you have completed your reports on the disaster I would be very much pleased to have a copy of same for this record.

I want to thank you for your courtesy in sending to me the barographs from West Frankfort and from Springfield which are very enlightening.

Sincerely Yours

Glenn A. Shafer

January 31, 1933.

Mr. Edward Flynn,
Deputy State Mine Inspector,
DuQuoin, Illinois.

Dear Ed:

In compliance with Mr. Miller's request I am enclosing a small blue print showing the section of the Moweaqua mine affected by the explosion. When I sent the tracing in to Pittsburgh office I did not know they intended to reduce it to such an extent and it is not very clear. If we get into the mine to make a little more thorough investigation than was possible at the time we were over there, I will mark the information on the map and send you another copy.

With kind personal regards.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-1

State of Illinois
Department of Mines & Minerals
Springfield

JOHN G. MILLHOUSE
DIRECTOR

PETER JOYCE
ASSISTANT DIRECTOR

February
First
1933.

Mr. Charles A. Herbert, Supervising Engineer,
United States Bureau of Mines,
412 La Plante Building,
Vincennes, Indiana.

Dear Charlie:

Under separate cover I am forwarding you my account of the Moweaqua mine disaster, relating mainly to the work preceding the recovery of the victims.

Yours very sincerely,

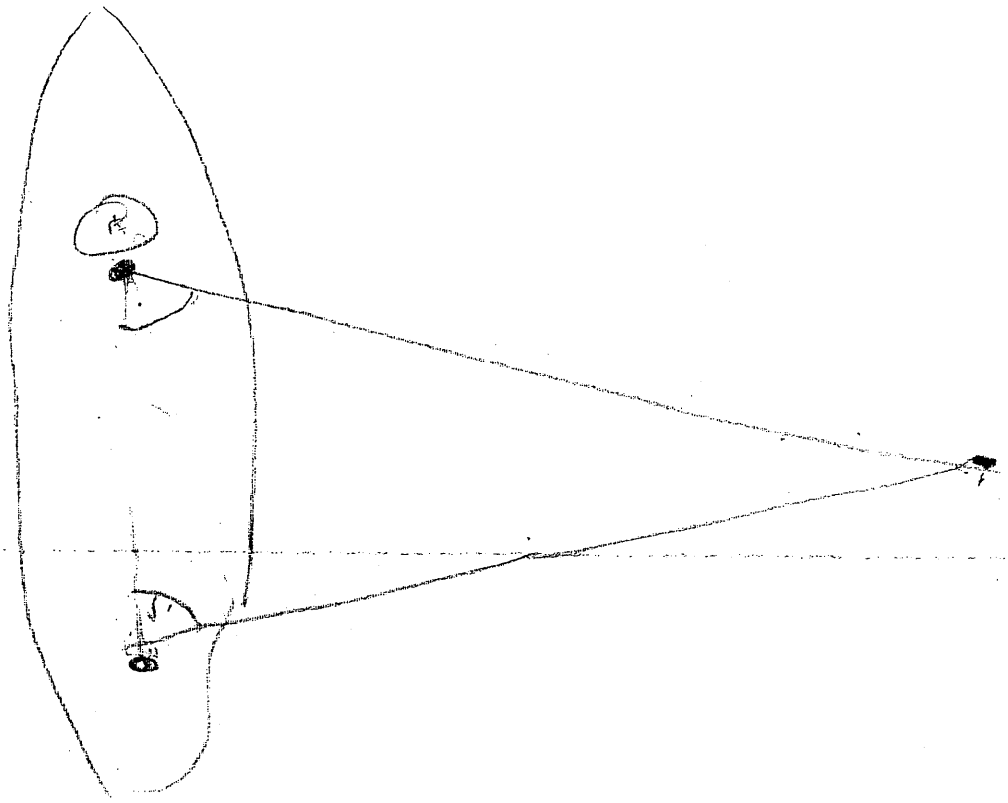
Peter Joyce

ASSISTANT

DIRECTOR.

PJ:MSH

Enc



February 2, 1933.

Mr. Peter Joyce,
Asst. Director, State Dept. Mines & Minerals,
Springfield, Illinois.

Dear Pete:

I wish to acknowledge, with many thanks, your letter of February 1, with which you sent copy of your account of the Moweaqua Mine disaster and relating mainly to the work preceding the recovery of the victims of the explosion.

I wish to compliment you on the manner in which this report has been prepared. It is very complete and clear and covers the situation very nicely I think.

I have not as yet prepared my final report on the disaster as I have been waiting an opportunity to get into the mine in order to make a little more thorough inspection than was possible at the time the State Department made its final inspection. We would like to get into where the fire was sealed and also in the return entries where there were no falls, as possibly by the latter we could determine a little more closely as to the origin of the explosion.

I should like very much to attach copies of your report to mine when I prepare it and if it is not asking too much, would appreciate receiving six additional copies of your report, as I observe this report was mimeographed and doubtless you can spare me these additional copies and which will obviate the necessity of having them typed here.

With sincere regards.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

February 2, 1933

Mr. Glenn A. Shafer, Pres.,
The Pana Coal Co.,
Pana, Illinois.

Dear Mr. Shafer:

This will acknowledge with many thanks, your letter of January 29 with which you enclosed your copy of the Coroner's Inquest testimony on the disaster at Moweaqua, Illinois.

As soon as we have been able to copy this record of testimony, we will return your copy to you for your files.

Relative to copy of my report on the disaster. I will be very glad indeed, to send you a copy as soon as I have completed it. I have been holding up on this as you know, with the thought that perhaps we might get into the mine again and make a little more thorough investigation than was possible at the time the investigation was made by the State Department.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

/ Mr. Fene

ADDRESS ALL COMMUNICATIONS TO
THE DIRECTOR, U. S. BUREAU OF MINES
WASHINGTON, D. C.

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
WASHINGTON

February 3, 1933.

Mr. J. J. Forbes,
U. S. Bureau of Mines,
Pittsburgh, Pa.

Dear Mr. Forbes:

I wish you would have some member of your organization prepare and forward to this office confidential memoranda on the explosions in the Zero and Mowequa mines.

Very truly yours,

D. Harrington
D. Harrington.

M.A. 2/4/33

Bill — Took them were prepared when they were transmitted — M.A.

State of Illinois
Department of Mines & Minerals
Springfield

JOHN G. MILLHOUSE
DIRECTOR

PETER JOYCE
ASSISTANT DIRECTOR

February
Third
1933.

Mr. Charles A. Herbert, Supervising Engineer,
United States Bureau of Mines,
412 La Plante Building,
Vincennes, Indiana.

Dear Charlie:

This will acknowledge receipt of your letter of the second instant. I was glad to learn that you liked my report.

For your information: the Mine Examiner of Moweaqua was in the office last week and said that he had been up to where the fire was sealed off and that the seals were intact.

Concerning the six additional copies of my report will say that the supply is exhausted; however, I will get my stenographer to make the copies as you request and will forward them to you in due time.

With best wishes for yourself and all the lads, I am

Sincerely yours,

Peter Joyce

ASSISTANT
DIRECTOR.

PJ:MSH

Febraury 4, 1933.

Mr. Peter Joyce, Asst. Director,
State Department of Mines and Minerals,
State Capitol Building,
Springfield, Illinois.

Dear Pete:

This will acknowledge your letter of February 3, and I am pleased to note that you will send us the additional copies of your report as soon as your stenographer has time to mimeograph them for us.

I notice what you say relative to the fire boss having gone up as far as the seals in the Moweaqua Mine and that these seals were intact. This merely, as I see it, corroborates our former belief in the matter that the fire had nothing to do with the explosion.

With kind personal regards, I am

Very truly yours,

C. A. Herbert,
Supervising Engineer.

Pittsburgh, Pa.
February 7, 1933

Mr. C. A. Herbert
U. S. Bureau of Mines
412 LaPlante Bldg.
Vincennes, Ind.

Dear Mr. Herbert:

I should like to know at your earliest convenience what, in your opinion, was responsible for stopping the flame in the recent Moweaqua mine explosion.

I wish to incorporate this, if possible, in a paper now being prepared by me.

Very truly yours,

J. J. FORBES

Charley—
I presume you will put this in your final report but I am assembling data for a paper and I would like to have your idea on this soon as convenient—

cc D. Harrington
Files

February 8, 1933 CWO:RS

Mr. D. Harrington
U. S. Bureau of Mines
Washington, D. C.

Dear Mr. Harrington:

I am enclosing rough drafts of confidential memoranda on the explosions in the Zero and Moweaqua mines, as requested in your letter of February 3, 1933.

As explained in my letter of January 4, the Zero explosion report was received late in the afternoon, and as you were anxious to receive the report, it was sent to you without being reviewed at this office. The only report received on the Moweaqua mine is the preliminary report. The definite cause of the explosion is not indicated in this report and, hence, confidential memorandum was not made at the time the report was forwarded to you. It is believed that the confidential memorandum on this explosion should be withheld until the final report is received and definite information may be given.

Very truly yours,

J. J. FORBES

Encl.

cc Files

Vincennes, Indiana.

February 10, 1933.

Mr. J. J. Forbes,
Supervis. Engr. Instr. Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

Dear Mr. Forbes:

In reply to your letter of February 7 with regard to the recent Moweaqua mine explosion. We have not as yet been able to get into the mine to make a more detailed investigation than we were able to do during the recovery work. The only sections of the mine we have seen were the haulage roads in to where the bodies were recovered, and these were so badly caved that it was practically impossible to arrive at a definite conclusion as to what conditions might have been prior to the explosion.

It is my belief that the sudden drop in barometric pressure on the morning of the explosion caused gas to flow out of the poorly sealed panels and that the north entries throughout, with the exception of the outby section of the 15th north, contained a nearly explosive mixture of methane. The gas was no doubt ignited by the open light of the driver riding on the car just inby the 3rd and 4th east north, where the first seven bodies were found. The gas at this point being at the explosive point.

Due to the soft soapstone top I believe the dust along the outby sections of the haulage entries was high in ash and that it required the addition of gas to make it explosive, hence it failed to propagate outby along the main west towards the shaft bottom.

I believe the dust in the inby sections of both the 15th and 16th south, 15th and 16th north, and main west, will doubtless be found to be more nearly pure coal dust and highly explosive, but in all three of these entries we have a condition where pressures were built up tocounter balance the pressure wave of the explosion, which I do not believe was very high, and in this way prevented the propagation to the face of these entries.

I have had several letters from Mr. Shafer of the Pana Coal Co., (owner of the Moweaqua mine) and he also called me by telephone last week; they are not certain whether the mine will be reopened or not: if it is he will let me know as soon as it is ventilated and before anything is disturbed, so we can complete our investigation. At the time of the recovery work it was impossible to get into the

2/13/33

return airways or go beyond where the bodies were recovered, hence our investigations were sketchy in the extreme.

I notice the blue prints of the explosion area were reduced to such an extent that they are not very legible, so I have prepared a new tracing on which I have made the lettering larger and on which will be placed any subsequent data so that I believe the next blue prints will be more easily read.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

ccDHarrington.

Vincennes, Indiana.

February 11, 1933.

Mr. J. J. Forbes,
Supervis. Engr. Instrl Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

Dear Mr. Forbes:

Yesterday evening, I talked with Mr. Glenn Shafer, of the Pana Coal Co., regarding possibility of our getting into the Moweaqua Mine, for more thorough investigation of cause of the recent explosion there. He advised me that we may do this Tuesday of next week. We will therefore leave Vincennes Monday night, Feb. 13, in order to have the entire day of Tuesday free for making this investigation.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

cc
DHarrington.

State of Illinois
Department of Mines & Minerals
Springfield

JOHN G. MILLHOUSE
DIRECTOR

PETER JOYCE
ASSISTANT DIRECTOR

February
Eleventh
1933.

Mr. Charles A. Herbert, Supervising Engineer,
United States Bureau of Mines,
412 La Plante Building,
Vincennes, Indiana.

Dear Charlie:

I am forwarding you under separate cover a copy of the Illinois Miner, in which issue is carried part of my report concerning the Moweaqua mine disaster.

Sincerely yours,

Peter Joyce

ASSISTANT

DIRECTOR.

PJ:MSH
Enc

February 13, 1933.

Mr. Peter Joyce,
Assistant Director,
Illinois Dept. Mines & Minerals,
Springfield, Illinois.

Dear Pete:

I wish to acknowledge with thanks, your letter of February 11 and also the copy of the "Illinois Miner", in which appeared your report on the Moweaqua mine disaster.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

State of Illinois
Department of Mines & Minerals
Springfield

JOHN G. MILLHOUSE
DIRECTOR

PETER JOYCE
ASSISTANT DIRECTOR

February
Seventeen,
1933.

Mr. Charles A. Herbert, Supervising Engineer,
United States Bureau of Mines,
412 La Plante Building,
Vincennes, Indiana.

Dear Charlie:

I regret that the copies of my report were not quite correct. On page fourteen there was an omission. I am enclosing six amended copies of page fourteen which you can attach in lieu of that page which I sent you this morning. With this correction I think the report is finally completed. I have been very busy recently and I suppose I did not give the attention to the report that I should have; anyhow, I think the thing is now "jake."

With best wishes, I remain

Yours very sincerely,

Peter Joyce

ASSISTANT

DIRECTOR.

PJ:MSH:Enc

State of Illinois
Department of Mines & Minerals
Springfield

JOHN G. MILLHOUSE
DIRECTOR

PETER JOYCE
ASSISTANT DIRECTOR

February
Seventeen,
1933.

Mr. Charles A. Herbert, Supervising Engineer,
United States Bureau of Mines,
412 La Plante Building,
Vincennes, Indiana.

Dear Charlie:

Under separate cover I am forwarding you six copies of my report on the Moweaqua mine disaster. The copies are typewritten because of the fact that a true copy of the report was not made; the mimeographing was not done in our Department. The person who cut the stencil left out some things and the job of mimeographing was a poor one. Had I read one before they were sent out I would not have let them go in that condition, but the assumption that they were correct was the reason of their going in that state.

Trusting these will be satisfactory, I remain

Sincerely yours,

Peter Joyce

ASSISTANT
DIRECTOR

PJ:MSH
Enc

February 18, 1933.

Mr. PeteeJoyce,
Assistant Director,
State Department of Mines,
Springfield, Illinois.

Dear Pete:

I am today in receipt of the six copies of your report on the Moweaqua Mine Explosion, which you were so kind to have typed for me.

I had not thought that it would be necessary that you have these typed - I presumed you had mimeographed a number of copies and that it would not have been such a big job to get these copies. I realize that this was quite a task and sincerely appreciate your kindness and also the kindness of your secretary in sending these copies to me.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

Moweaqua, Illinois,

February 29, 1933.

Mrs. Charles A. Herbert,
Divisional Engineer U. S. Dept. Mines & Minerals,

Vincennes, Indiana.

Dear Sir:

I do not suppose you will remember me, by name, at least, but I was for ten or twelve years superintendent of the Moweaqua mine, and at the time of our disaster last December 24th, was in the employ of the leasing company as general utility man, giving most of my attention to sales. I am a brother-in-law of Glen Shafer, who, with his mother and myself and family own about three-fourths of the stock of the old company.

Being a former newspaper man, I knew, immediately the magnitude of our disaster became known to us that I was going to put it in permanent book form. I have almost completed the manuscript, now. In the book, I am using the official report Director Millhouse's investigating committee returned to him after they examined the mine ten days following the explosion. Now, I am wondering if you have any findings you would like recorded in my work. If so, feel free to send it in. I must ask, however, that this be not long delayed, as I am very anxious to get my manuscript to the publishers.

Very truly yours,

Ernest A. Fowler

(COPY)

Excerpts from local endorsements:

"Mr. Foster, we believe, is the only man in position and competent in all ways to issue an accurate account of our great misfortune. He has gone into great detail in his work and, without solicitation, has very generously offered to turn over one-half of his profits to the rehabilitation of the mine, or to any other local relief purpose that we, the undersigned, may designate.

(Signed):

MOWEAQUA COAL CORPORATION
L. V. Brown, President.
J. F. Hickman, Supt. & Secretary.

MOWEAQUA MINERS' UNION
Steve Novota, President.
Joe Woodring, Jr., Secretary.

VILLAGE OF MOWEAQUA
Charles Howard, Mayor.

MOWEAQUA LOCAL RELIEF ASSOCIATION
Rev. Silas N. Wakefield, Chairman.
Mrs. Adith Poole, Secretary.

MOWEAQUA CHAPTER RED CROSS
Dr. J. L. Sparling, President.
Mrs. Mary F. Dobson, Secretary.

(COPY)

Decatur (Ill.) Review, February 21, 1933:

FOSTER WRITES BOOK ON THE MINE DISASTER

Part of Proceeds to Go for Relief of Moweaqua Families

Moweaqua's mine disaster will go into literature through the pen of Ernest C. Foster, stockholder and former superintendent of the mine and more recently in charge of sales with the leasing company.

A book soon to be brought out by Mr. Foster will tell the story of the disaster with details of the search for the bodies of the victims, and a biographical sketch of each of the fifty-four men who lost their lives. Their will also be findings and reports of state officials. The book will be endorsed by the Moweaqua miners' union and by all civic bodies effected by the disaster. A portion of the receipts from sales of the book will gofor relief, particularly to the reopening of the mine, upon which so many families depend. The book will be profusely illustrared.

Mr. Foster, formerly with The Illinois State Journal, Springfield, and The Denver News-Times, gave up the publication of The Assumption Illinois Tribune to enter mining, in which members of his family are interested. He knew the miners and members of their families, intimately.

March 2, 1933

Mr. E. C. Foster,
Moweaqua, Illinois.

Dear Sir:

I am in receipt of your letter of recent date relative to the manuscript you are preparing, covering the Moweaqua disaster, and I note you would like if possible, to have the Bureau's findings on the cause of the disaster, in order that this might also be incorporated in your book.

I regret however, to advise that it will be impossible for me to do this immediately as our rulings are very strict in the matter; the report must be forwarded first to Washington for approval, and a copy will then be forwarded probably to Mr. Schafer. This will probably take three or four weeks.

I might add however, it is my opinion that the explosion had its origin on the 15th North entry and was due to the ignition of gas by the open lights of the men going in on the 15th North; the gas that was ignited without question was released from the sealed areas on the 15th North due to the rapid drop in barometric pressure which occurred immediately prior to the explosion.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

March 10, 1933.

Mr. Glenn A. Shafer, Pres.,
Pana Coal Company,
Pana, Illinois.

Dear Mr. Shafer:

I am returning herewith the Coroner's Inquest Proceedings covering the Moweaqua mine disaster, which you so kindly loaned to me.

I realize that we have kept this for quite some time, but the copying of it was quite a job and we had to fit it in whenever we could do so in connection with our regular work.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

encl.-

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF MINES
Vincennes, Indiana.

March 18, 1933.

Mr. J. J. Forbes,
Supervis. Engr. Instr. Section,
U. S. Bureau of Mines,
Pittsburgh, Penna.

SUBJECT: Final Report, Explosion Moweaqua.

Dear Mr. Forbes:

There is being enclosed herewith, four copies of final report on the explosion in the Moweaqua Mine December 24, 1932.

Inasmuch as the operating company, The Moweaqua Coal Corporation, is now non-existant, I think it would be advisable to send the operator's copy to Mr. Glen A. Shafer, General Manager, Pana Coal Co., Pana, Illinois. The Pana Coal Company owns the Moweaqua Mine and should it be reopened, doubtless Mr. Shafer will impose certain conditions on any new operating company, in order to make the mine safer.

It is very questionable however, whether or not anyone can be found who will be willing to advance the necessary funds for the reopening of this mine.

Very truly yours,

C. A. Herbert,
Supervising Engineer.

3/21/33

encl.-4
ccDHarrington.

March 22, 1933 CWO:RS

Mr. D. Harrington
U. S. Bureau of Mines
Washington, D. C.

Dear Mr. Harrington:

Enclosed are the original and three carbon copies of the final report on the explosion in the Moweaqua mine, Moweaqua Coal Corporation, Moweaqua, Illinois, by C. A. Herbert. One carbon copy of this report has been corrected by Mr. Owings. A confidential memorandum, based on the preliminary report, has already been submitted to you and, inasmuch as this memorandum contained all the essential data, a second memorandum has not been prepared.

Mr. Herbert requests that the original copy of the report be sent to Mr. Glen A. Shafer, General Manager, Pana Coal Company, Pana, Illinois, inasmuch as the operating company, the Moweaqua Coal Corporation, is now non-existent.

Very truly yours,

J. J. FORBES

Encl.

JJF (Carbon made)

cc Files

April 5, 1933. DH:LP.

D-1568

Mr. Glenn A. Shafer, General Manager,
Pana Coal Company,
Pana, Illinois.

Dear Mr. Shafer:

In the course of the Bureau of Mines' study of mine explosions, C. A. Herbert, a supervising engineer of the Bureau of Mines, has prepared a final report on the explosion which occurred in the Moweaqua Mine, at Moweaqua, Illinois, December 24, 1932. Studies and reports of this kind are made with the hope of securing information which may aid in preventing similar occurrences.

It is customary for the Bureau to send a copy of a report of this character to the responsible management of the operating company but in this case as it is understood the operating company has gone out of existence, the report is being sent to you with the understanding that you are one of the principal stockholders of the company owning the Moweaqua mining property.

Reports of this nature are held as confidential by the Bureau, and are not published, unless by consent of the mining company by whose courtesy these studies were made possible. If there are any errors or misstatements of fact in the report it will be appreciated if you will call them to my attention.

4/6/33

Yours faithfully,

O. P. HOOD

O. P. HOOD, Acting Director,
For SCOTT TURNER, Director.

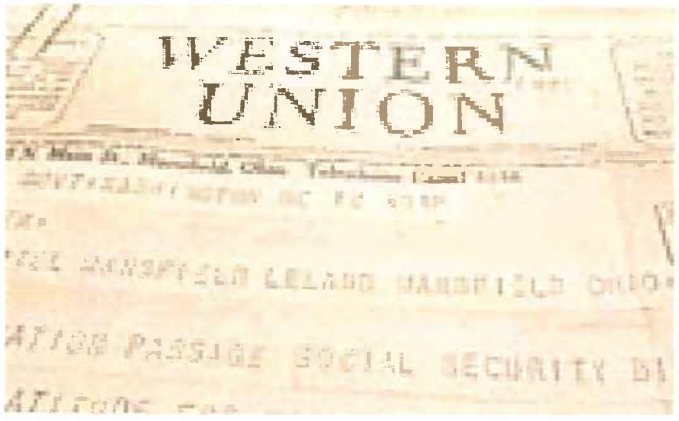
CC - Mr. J. J. Forbes, Pittsburgh, Pa.
Mr. C. A. Herbert, Vincennes, Ind.
Safety Division
W. O. Files.
Incl. No. 4613.

Company operating must be reoeganized so that there are no dissenting factions.With a good mining man at the hear of the company.

The securing of a minimum of $15,000. for the reconstruction work. The reason for this is that it will take $5000. to clean the Main West entry and another $5000. to clean the South entry. The 15th.North entry with the small amount of work left in that section should be abandoned after securing as much of the mining machines as possible and as much of the track and trolley wire as possible. These entries then must be sealed off with double concrete seals.
The securing of a minimum of 100 electric cap lamps and batteries with supplies for same and charging apparatus installed at an approximate cost of $2000.
Two more mules will have to be secured. The bills for the first aid teams and Mine Rescue teams with the material bills must be paid.

An agreement should be made with the miners expecting to work in this mine that a certain amount should be checked off their wages each pay day to add to the relief fund for the families of those that were killed. This to be carried for a period of approximately 10 yeras and administered by a special Board composed of both business men and miners.

For the start of the cleaning up of the mine I would put it underground under the direct supervision of John Simpson of Pana,Ill. a good Mine Manager and one noted for his safety practices.
He would name three shifts of men of approximately 8 to work underground, each shift under a competent leader only,possibly Chas Smith of Moweaqua, Harry Watts and W.Buckmaster of Pana.
The first start would be right from the bottom to see as we proceed inside that every cross cut between the main and return airways are filled good and that no leaks are had.Upon arriving at the first overcast this must be repaired first in good shape before proceeding further.
Upon arriving at the first heavy fall there would be employed loading rock from the fall,two men with a single driver pulling the rock away from them with a mule to the bottom.Then two men would be designated as timber men that would follow up immediately behind the rock loaders putting up good timbers and securing the roadways. The two men that would be cross cut men would proceed ahead and see that every cross cut is filled good,without any leaks up as far as the 16th North Entry. Then the cross cut that was opened between the main and back entry just west of the 16th.North should be filled up again so that the air would be driven to the straight West Entries.
Then the new overcast should be built at the 15th South Entry and after this is done the South entries aired and another section of men could be started cleaning up the South for this must be cleaned as the only motor that the company has is in the South.
All this work should be carried through in orderly manner and looked after by Mr.Simpson who would go into the mine at least once each day,possibly each evening to see that the work is proceeding properly.
The reason that I feel all work should be done under his direction is that we do not want to see anyone injured in this work of reconstruction and to my knowledge he is the best man available for this work,yet it would not take all of his time and his pay for the work would not be full time pay.



Telegraph

December 24-30 1932

CLASS OF SERVICE

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WESTERN UNION

NEWCOMB CARLTON, PRESIDENT J. C. WILLEVER, FIRST VICE-PRESIDENT

SIGNS

DL = Day Letter
NM = Night Message
NL = Night Letter
LCO = Deferred Cable
NLT = Cable Night Letter
WLT = Week-End Letter

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is STANDARD TIME.

Received at Chamber of Commerce Bldg., Cor. 7th Ave. & Smithfield St., Pittsburgh, Pa.

DUPLICATE OF TELEPHONED TELEGRAM

MINUTES IN TRANSIT	
FULL-RATE	DAY LETTER

BUREAU OF MINES PITTSBURGH, PA. DEC 28 1932 RECEIVED

CB483 18GOVT COLLECT

DECATUR ILL 26 712P

BUREAU OF MINES

PGH

TWELVE BODIES RECOVERED YESTERDAY TWENTY SEVEN TODAY STOP RETURNING VINCENNES TONITE AT MINE TOMORROW STOP WASHINGTON ADVISED

HERBERT.

G.W.T.
904A
(12/27/32)
MAIL

Rec 8.35 PM 12/26

STANDARD FORM No. 14A
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

GOVERNMENT PRINTING OFFICE 11—9107

CHECK SERVICE DESIRED

	Day Letter
	Night Message
X	Night Letter
	Fast Day Message

IF MESSAGE IS TO WASHINGTON, D. C., SEND COLLECT

OTHERWISE CHARGE
U. S. BUREAU OF MINES _____
(Station)

Sent by J. J. Forbes

Title Supervising Eng., Safety Division

Place Pittsburgh, Pa.

Date December 27, 1932 JJF:RS

Mr. D. Harrington
U. S. Bureau of Mines
Washington, D. C.

Herbert wires quote, Explosion, Mowequa Coal Corporation, Mowequa, Illinois, eight twenty a.m. Starting time eight a.m. Fifty-seven men in mine. Three eagers at bottom escaped. Mine heavily timbered. Entries closed with falls. Men probably one-half mile inside first bad fall. Seals on a mine fire on inside completed two hours before explosion. Possibly explosion behind seals caused explosion. Mine dry and dusty. Explosion probably propagated by coal dust. No rock-dusting or face working. Open light mine. Forbes, Miller and myself at mine. end quote

Forbes

Phoned W.U. 12:55 a.m. 12/28/32 by RKH
Confirmation
cc Files ✓

STANDARD FORM No. 14A
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

GOVERNMENT PRINTING OFFICE 11—9107

CHECK SERVICE DESIRED

	Day Letter
	Night Message
	Night Letter
X	Fast Day Message

IF MESSAGE IS TO WASHINGTON, D. C., SEND COLLECT

OTHERWISE CHARGE U. S. BUREAU OF MINES Pittsburgh, Pa. (Station)

Sent by J. J. Forbes

Title Supervising Engr., Saf.Div.

Place Pittsburgh, Pa.

Date Dec. 24, 1932 JJF:LJ

C. A. Herbert
U. S. Bureau of Mines
412 LaFlante Bldg.
Vincennes, Indiana

Associated Press reports explosion occurred nine thirty this morning Monongah Coal Company mine near Decatur entombing thirty. Proceed immediately with rescue truck and wire details.

Forbes.

Phoned to W.U. 12/24/32 at 11:35 a.m. L.E.J.

cc D. Harrington
Files

STANDARD FORM NO. 14A
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

GOVERNMENT PRINTING OFFICE 11—9107

CHECK SERVICE DESIRED

	Day Letter
	Night Message
	Night Letter
X	Fast Day Message

IF MESSAGE IS TO WASHINGTON, D. C., SEND COLLECT

OTHERWISE CHARGE U. S. BUREAU OF MINES Pittsburgh, Pa. (Station)

Sent by J. J. Forbes

Title Supervising Engr.

Place Pittsburgh, Pa.

Date Dec. 24, 1932 JFF:LJ

D. Harrington
U. S. Bureau of Mines
5155-19th St. N. W.
Washington, D. C.

Associated Press reports explosion occurred 9:30 this morning Mowequa Coal Company mine Mequequa Illinois near Decatur entombing thirty. Stop. Have instructed Herbert to proceed with rescue truck. No further details.

Forbes.

Phoned to W.U. 12/24/32 at 11:40a.m. by L.E.J.

cc Files ✓

WESTERN UNION

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NEWCOMB CARLTON, PRESIDENT — J. C. WILLEVER, FIRST VICE-PRESIDENT

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Received at Chamber of Commerce Bldg., Cor. 7th Ave. & Smithfield St., Pittsburgh, Pa. 1932 DEC 24 PM 1 06

NDA95 34 GOVT=VINCENNES IND 24 1140A

J J FORBES, US BUREAU MINES=
4800 FORBES ST PGH=

DUPLICATE OF TELEPHONED TELEGRAM

BUREAU OF MINES PITTSBURGH, PA. DEC 27 1932 RECEIVED

MOWEAQUA COAL COMPANY ADVISES FIFTY MEN IN MINE STATE RESCUE CREW WITH EQUIPMENT FROM SPRINGFIELD ARRIVING STOP PROBABLY UNNECESSARY TO TAKE VINCENNES EQUIPMENT OTHER THAN CAP LAMPS STOP WAITING RETURN CALL FROM COAL COMPANY=

HERBET.

Ma 450 To T.H.C. (Rept) By Sy 1:14P
STM. 1:10P

Mr. Forbes notified. B.

Rec'd 1:14 PM 12/24

WESTERN UNION GIFT ORDERS ARE APPROPRIATE GIFTS FOR ALL OCCASIONS.

File

1201 S

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable sign above or preceding the address.

WESTERN UNION

NEWCOMB CARLTON, PRESIDENT — J. C. WILLEVER, FIRST VICE-PRESIDENT

SIGNS
DL = Day Letter
NM = Night Message
NL = Night Letter
LCO = Deferred Cable
NLT = Cable Night Letter
WLT = Week-End Letter

EL

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is STANDARD TIME.

Received at Chamber of Commerce Bldg., Cor. 7th Ave. & Smithfield St., Pittsburgh, Pa. 1932 DEC 30 AM 10 11

CB222 39 GOVT COLLECT=DECATUR

MINUTES IN TRANSIT

FULL-RATE	DAY LETTER

JAN 3 1933

RECEIVED

BUREAU OF MINES=
PGH=

LAST SEVEN BODIES RECOVERED ON FIFTEEN NORTH TOTAL FIFTY FOU STOP LEAVING FOR VINCENNES RETURNING WEDNESDAY STOP BELIEVE EXPLOSION ORIGINATED ON FIFTEEN NORTH DUE IGNITION GAS FROM OLD WORKINGS FIFTEEN HUNDRED FEET OUT BY FACE WASHINGTON NOT ADVISED=

HERBERT.

Recd 10:10 AM 12/30

No. ... By ...

STANDARD FORM No. 14A
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

GOVERNMENT PRINTING OFFICE 11—9107

CHECK SERVICE DESIRED

	Day Letter
	Night Message
	Night Letter
X	Fast Day Message

IF MESSAGE IS TO WASHINGTON, D.C., SEND COLLECT

OTHERWISE CHARGE U. S. BUREAU OF MINES Pittsburgh (Station)

Sent by J. J. Forbes

Title Supr. Engr., Sfty. Div.

Place Pittsburgh, Pa.

Date December 30, 1932 JFF:FF

D. Harrington,
U. S. Bureau of Mines,
Washington, D. C.

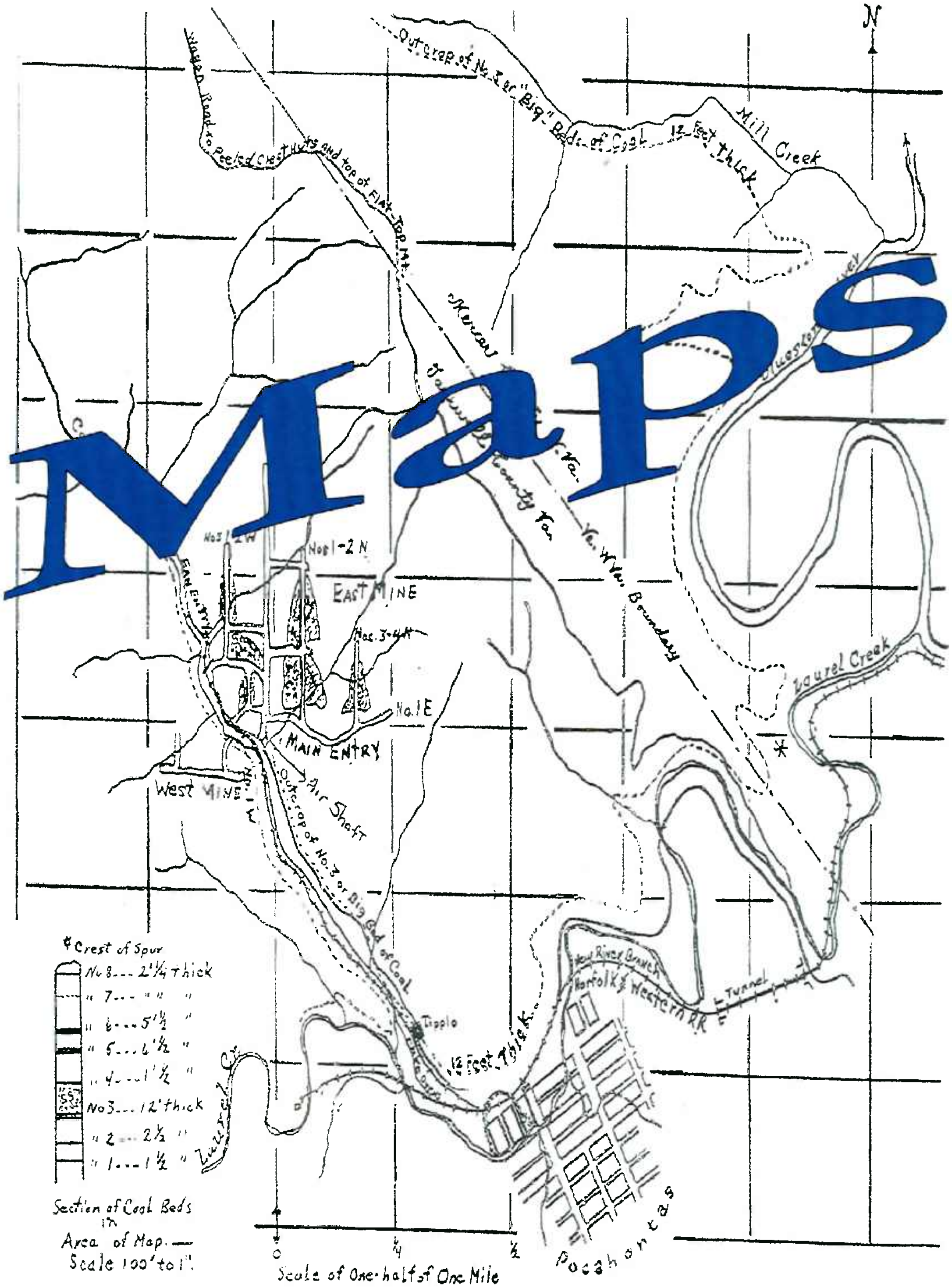
Herbert wired quote Last seven bodies recovered on fifteen North, total fifty-four. Leaving for Vincennes returning Wednesday. Believe explosion originated on fifteen North due ignition gas from old workings fifteen hundred feet outby face. [redacted]

Forbes.

Phoned W.U. 10:30 a.m., 12/30/32 by F.F.

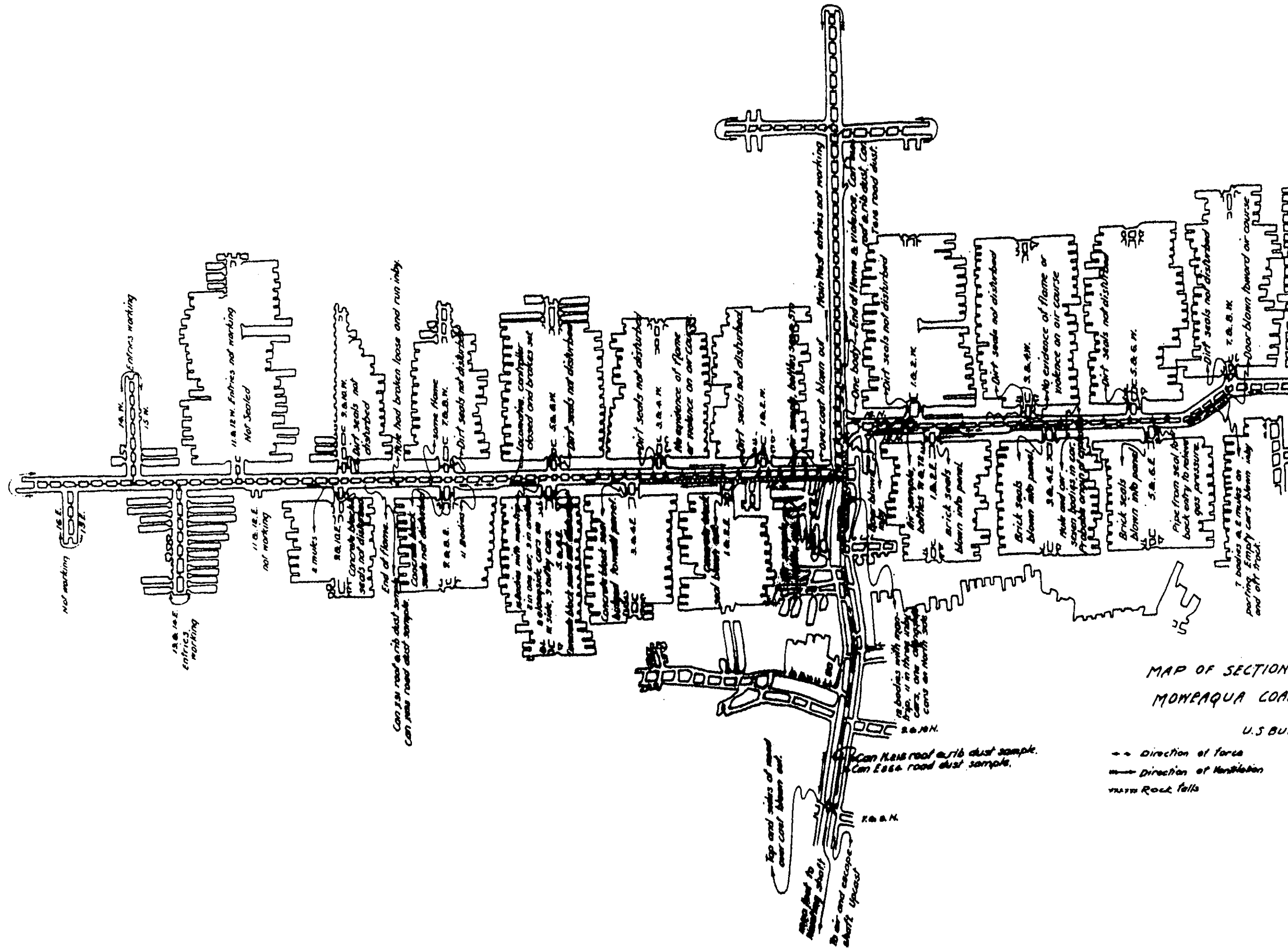
Confirmation
CC-Miles ✓

Maps



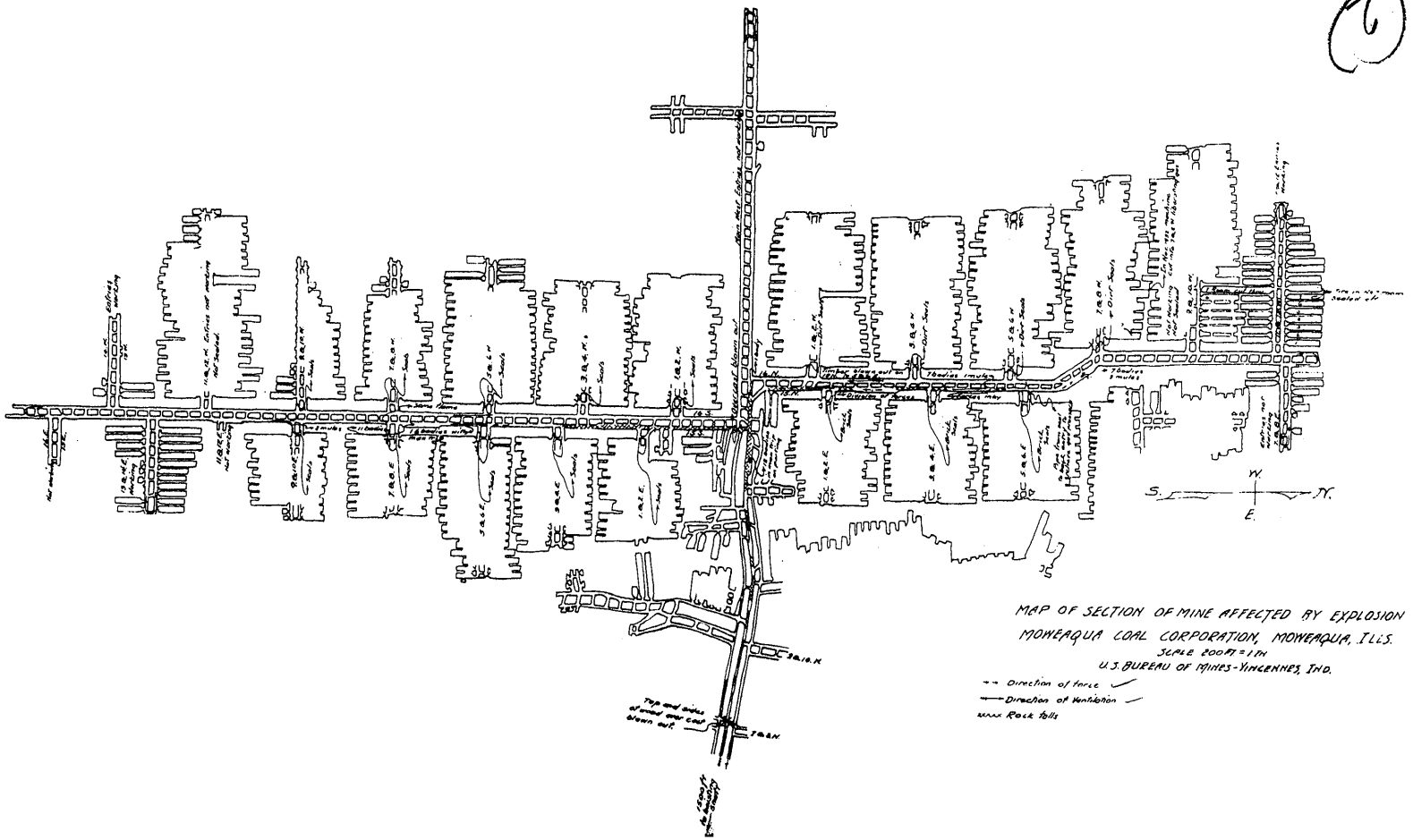
N
Mill Creek
Laurel Creek
East Mine
Main Entry
West Mine
Air Shaft
Tipple
Tunnel
Pocahontas
Crest of Spur
Section of Coal Beds in Area of Map. Scale 100' to 1".
Scale of One-half of One Mile

Map



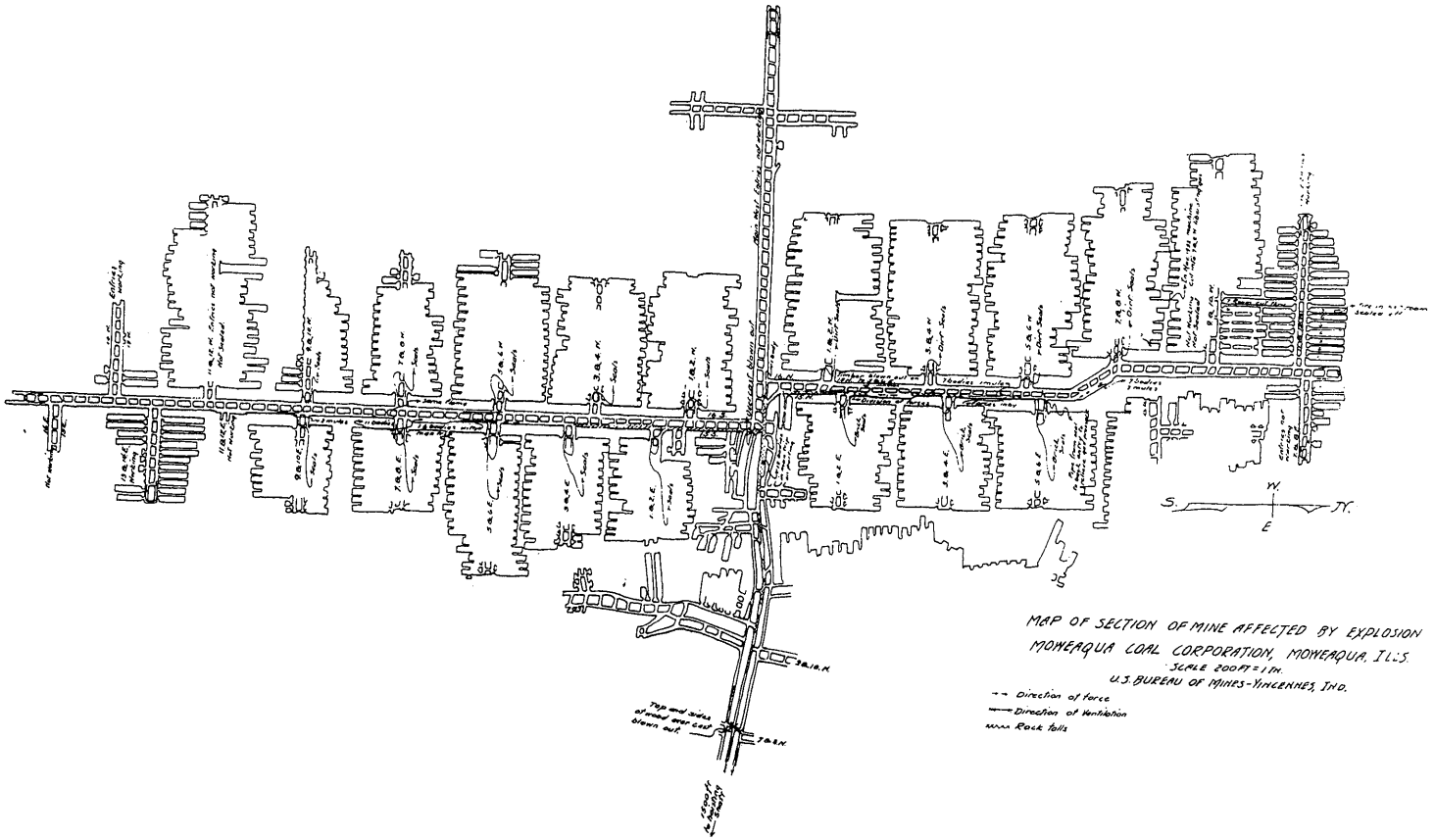
MAP OF SECTION OF MINE AFFECTED BY EXPLOSION
MOWEAQUA COAL CORPORATION, MOWEAQUA, ILLS.
SCALE 200FT = 1 IN.
U.S BUREAU OF MINES - VINCENNES, IND.

Direction of force
Direction of Ventilation
Rock falls



MAP OF SECTION OF MINE AFFECTED BY EXPLOSION
MONEAQUA COAL CORPORATION, MONEAQUA, ILLS.
SCALE 200 FT = 1 IN
U.S. BUREAU OF MINES - VINCENNES, IND.

→ Direction of force
⟶ Direction of Ventilation
xxxx Rock falls



MAP OF SECTION OF MINE AFFECTED BY EXPLOSION
MONEAQUA COAL CORPORATION, MONEAQUA, ILL.
SCALE 200FT = 1 IN.
U.S. BUREAU OF MINES-VINCENNES, IND.

→ Direction of force
—— Direction of Ventilation
~~~ Rock falls
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